EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L5	270400	transcription or translation or protein synthesis	US-PGPUB; USPAT	ADJ	OFF	2006/10/06 16:30
L6	9992	"1" near5 (in vitro or cell free) or itt	US-PGPUB; USPAT	ADJ	OFF	2006/10/06 16:31
L7	369	recBC$ or exov or exo adj v	US-PGPUB; USPAT	ADJ	OFF	2006/10/06 16:31
L8	26	6 and 7	US-PGPUB; USPAT	ADJ	OFF	2006/10/06 16:31

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:40:05 ON 06 OCT 2006

=> fil .bec
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
       ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 16:40:18 ON 06 OCT 2006
ALL COPYRIGHTS AND RESTRICTIONS APPLY.  SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s transcription or translation or protein synthesis
FILE 'MEDLINE'
        281709 TRANSCRIPTION
         45558 TRANSLATION
       1575820 PROTEIN
        433491 SYNTHESIS
         51283 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L1      354106 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'SCISEARCH'
        223168 TRANSCRIPTION
         54572 TRANSLATION
       1331797 PROTEIN
        772277 SYNTHESIS
         44136 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L2      302012 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'LIFESCI'
        115478 TRANSCRIPTION
         25086 TRANSLATION
        514071 "PROTEIN"
        111352 "SYNTHESIS"
         16572 PROTEIN SYNTHESIS
                 ("PROTEIN"(W)"SYNTHESIS")
L3      145350 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'BIOTECHDS'
         20252 TRANSCRIPTION
          6231 TRANSLATION
        152563 PROTEIN
         24620 SYNTHESIS
          1436 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L4       25096 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'BIOSIS'
        242977 TRANSCRIPTION
         54523 TRANSLATION
       1600576 PROTEIN
        566268 SYNTHESIS
         73491 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L5      344615 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'EMBASE'
        271541 TRANSCRIPTION
         45716 TRANSLATION
```

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       1547249 "PROTEIN"
        571999 "SYNTHESIS"
         85054 PROTEIN SYNTHESIS
                 ("PROTEIN"(W)"SYNTHESIS")
L6      371226 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'HCAPLUS'
        327803 TRANSCRIPTION
        495728 TRANSLATION
       1921265 PROTEIN
       1271581 SYNTHESIS
         72621 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L7      856750 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'NTIS'
          2045 TRANSCRIPTION
         64328 TRANSLATION
         13503 PROTEIN
         35555 SYNTHESIS
           615 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L8       66785 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'ESBIOBASE'
        130298 TRANSCRIPTION
         23657 TRANSLATION
        669718 PROTEIN
        171104 SYNTHESIS
         41400 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L9      173078 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'BIOTECHNO'
        160885 TRANSCRIPTION
         25603 TRANSLATION
        623255 PROTEIN
        144368 SYNTHESIS
         32236 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L10     200107 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

FILE 'WPIDS'
         15483 TRANSCRIPTION
         29849 TRANSLATION
        144848 PROTEIN
         90084 SYNTHESIS
          1285 PROTEIN SYNTHESIS
                 (PROTEIN(W)SYNTHESIS)
L11      44338 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

TOTAL FOR ALL FILES
L12    2883463 TRANSCRIPTION OR TRANSLATION OR PROTEIN SYNTHESIS

=> s l12(5a)(in vitro or cell free) or itt
FILE 'MEDLINE'
      11123291 IN
        845983 VITRO
        845708 IN VITRO
                 (IN(W)VITRO)
       2055382 CELL
        487418 FREE
         32058 CELL FREE
                 (CELL(W)FREE)
         16244 L1 (5A)(IN VITRO OR CELL FREE)
```

```
          1030 ITT
L13      17271 L1 (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'SCISEARCH'
      14989233 IN
        484855 VITRO
        481422 IN VITRO
                 (IN(W)VITRO)
       1595227 CELL
        627623 FREE
         17350 CELL FREE
                 (CELL(W)FREE)
          9925 L2 (5A)(IN VITRO OR CELL FREE)
          1166 ITT
L14      11088 L2 (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'LIFESCI'
        202565 IN VITRO
                 ("VITRO")
        546120 "CELL"
        103299 "FREE"
         10243 CELL FREE
                 ("CELL"(W)"FREE")
          9316 L3 (5A)(IN VITRO OR CELL FREE)
           112 ITT
L15       9427 L3 (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'BIOTECHDS'
         29429 IN VITRO
                 (VITRO)
        170601 CELL
         28129 FREE
          4648 CELL FREE
                 (CELL(W)FREE)
          1584 L4 (5A)(IN VITRO OR CELL FREE)
             6 ITT
L16       1590 L4 (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'BIOSIS'
        681157 IN VITRO
                 (VITRO)
       3791623 CELL
        484410 FREE
         27084 CELL FREE
                 (CELL(W)FREE)
         18920 L5 (5A)(IN VITRO OR CELL FREE)
           923 ITT
L17      19840 L5 (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'EMBASE'
       8995168 "IN"
        985223 "VITRO"
        984960 IN VITRO
                 ("IN"(W)"VITRO")
       2719416 "CELL"
        406882 "FREE"
         19029 CELL FREE
                 ("CELL"(W)"FREE")
         13070 L6 (5A)(IN VITRO OR CELL FREE)
          1059 ITT
L18      14126 L6 (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'HCAPLUS'
        641187 IN VITRO
                 (VITRO)
```

```
        2118574 CELL
        1269684 FREE
          36275 CELL FREE
                  (CELL(W)FREE)
          21844 L7  (5A)(IN VITRO OR CELL FREE)
            747 ITT
L19       22589 L7  (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'NTIS'
        1785086 IN
           9133 VITRO
           9044 IN VITRO
                  (IN(W)VITRO)
          50856 CELL
          61685 FREE
            354 CELL FREE
                  (CELL(W)FREE)
            132 L8  (5A)(IN VITRO OR CELL FREE)
            166 ITT
L20           298 L8  (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'ESBIOBASE'
        2979532 IN
         220542 VITRO
         220312 IN VITRO
                  (IN(W)VITRO)
         803565 CELL
         157557 FREE
           7481 CELL FREE
                  (CELL(W)FREE)
           6190 L9  (5A)(IN VITRO OR CELL FREE)
            446 ITT
L21         6633 L9  (5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'BIOTECHNO'
        1588351 IN
         253158 VITRO
         253028 IN VITRO
                  (IN(W)VITRO)
         822843 CELL
          81349 FREE
           9281 CELL FREE
                  (CELL(W)FREE)
           9667 L10(5A)(IN VITRO OR CELL FREE)
             93 ITT
L22         9758 L10(5A)(IN VITRO OR CELL FREE) OR ITT

FILE 'WPIDS'
          26891 IN VITRO
                  (VITRO)
         419630 CELL
         532886 FREE
           2720 CELL FREE
                  (CELL(W)FREE)
            814 L11(5A)(IN VITRO OR CELL FREE)
             38 ITT
L23           852 L11(5A)(IN VITRO OR CELL FREE) OR ITT

TOTAL FOR ALL FILES
L24      113472 L12(5A)(IN VITRO OR CELL FREE) OR ITT

=> s (nuclease# or ribonuclease# or deoxyribonuclease# or rnase## or
dnase##)(4a)inhibit?
FILE 'MEDLINE'
          16567 NUCLEASE#
```

```
         28595 RIBONUCLEASE#
         25717 DEOXYRIBONUCLEASE#
         14251 RNASE##
         11323 DNASE##
       1286323 INHIBIT?
L25        2217 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'SCISEARCH'
         11723 NUCLEASE#
         12866 RIBONUCLEASE#
          1938 DEOXYRIBONUCLEASE#
         12477 RNASE##
          8762 DNASE##
       1077167 INHIBIT?
L26        1645 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'LIFESCI'
          7855 NUCLEASE#
          5887 RIBONUCLEASE#
          4882 DEOXYRIBONUCLEASE#
          7390 RNASE##
          6070 DNASE##
        346647 INHIBIT?
L27         938 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'BIOTECHDS'
          2378 NUCLEASE#
           614 RIBONUCLEASE#
           125 DEOXYRIBONUCLEASE#
          1127 RNASE##
           634 DNASE##
         60638 INHIBIT?
L28         326 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'BIOSIS'
         24658 NUCLEASE#
          8522 RIBONUCLEASE#
          1292 DEOXYRIBONUCLEASE#
         27417 RNASE##
         17234 DNASE##
       1377832 INHIBIT?
L29        2822 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'EMBASE'
         11623 NUCLEASE#
         15685 RIBONUCLEASE#
          8581 DEOXYRIBONUCLEASE#
         12358 RNASE##
          9665 DNASE##
       1177306 INHIBIT?
L30        1716 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'HCAPLUS'
         25579 NUCLEASE#
         13676 RIBONUCLEASE#
         38290 RNASE
         43291 RIBONUCLEASE#
                 (RIBONUCLEASE# OR RNASE)
          3737 DEOXYRIBONUCLEASE#
```

```
         19911 DNASE
         21608 DEOXYRIBONUCLEASE#
                 (DEOXYRIBONUCLEASE# OR DNASE)
         39138 RNASE##
         20513 DNASE##
       1867961 INHIBIT?
L31       5276 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'NTIS'
           206 NUCLEASE#
           193 RIBONUCLEASE#
            47 DEOXYRIBONUCLEASE#
            99 RNASE##
            65 DNASE##
         21289 INHIBIT?
L32          27 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'ESBIOBASE'
          4807 NUCLEASE#
          5821 RIBONUCLEASE#
           524 DEOXYRIBONUCLEASE#
          7487 RNASE##
          4889 DNASE##
        483136 INHIBIT?
L33          873 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'BIOTECHNO'
          7602 NUCLEASE#
          7816 RIBONUCLEASE#
          4089 DEOXYRIBONUCLEASE#
          8055 RNASE##
          6433 DNASE##
        301415 INHIBIT?
L34          886 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

FILE 'WPIDS'
          2062 NUCLEASE#
           901 RIBONUCLEASE#
          1200 RNASE
          1947 RIBONUCLEASE#
                 (RIBONUCLEASE# OR RNASE)
           244 DEOXYRIBONUCLEASE#
           548 DNASE
           755 DEOXYRIBONUCLEASE#
                 (DEOXYRIBONUCLEASE# OR DNASE)
          1348 RNASE##
           622 DNASE##
        257362 INHIBIT?
L35          395 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A)INHIBIT?

TOTAL FOR ALL FILES
L36        17121 (NUCLEASE# OR RIBONUCLEASE# OR DEOXYRIBONUCLEASE# OR RNASE## OR
               DNASE##)(4A) INHIBIT?

=> s l24 and l36
FILE 'MEDLINE'
L37           85 L13 AND L25

FILE 'SCISEARCH'
L38           47 L14 AND L26
```

```
FILE 'LIFESCI'
L39          46 L15 AND L27

FILE 'BIOTECHDS'
L40          26 L16 AND L28

FILE 'BIOSIS'
L41         107 L17 AND L29

FILE 'EMBASE'
L42          63 L18 AND L30

FILE 'HCAPLUS'
L43         178 L19 AND L31

FILE 'NTIS'
L44           0 L20 AND L32

FILE 'ESBIOBASE'
L45          33 L21 AND L33

FILE 'BIOTECHNO'
L46          46 L22 AND L34

FILE 'WPIDS'
L47          18 L23 AND L35

TOTAL FOR ALL FILES
L48         649 L24 AND L36

=> s l48 not 2002-2006/py
FILE 'MEDLINE'
       2844973 2002-2006/PY
                 (20020000-20069999/PY)
L49          75 L37 NOT 2002-2006/PY

FILE 'SCISEARCH'
       5243521 2002-2006/PY
                 (20020000-20069999/PY)
L50          36 L38 NOT 2002-2006/PY

FILE 'LIFESCI'
        500908 2002-2006/PY
L51          39 L39 NOT 2002-2006/PY

FILE 'BIOTECHDS'
        122693 2002-2006/PY
L52           1 L40 NOT 2002-2006/PY

FILE 'BIOSIS'
       2511100 2002-2006/PY
L53          98 L41 NOT 2002-2006/PY

FILE 'EMBASE'
       2473613 2002-2006/PY
L54          55 L42 NOT 2002-2006/PY

FILE 'HCAPLUS'
       5401054 2002-2006/PY
L55         152 L43 NOT 2002-2006/PY

FILE 'NTIS'
         71750 2002-2006/PY
L56           0 L44 NOT 2002-2006/PY
```

```
FILE 'ESBIOBASE'
       1474871 2002-2006/PY
L57          25 L45 NOT 2002-2006/PY

FILE 'BIOTECHNO'
        244553 2002-2006/PY
L58          42 L46 NOT 2002-2006/PY

FILE 'WPIDS'
       4666175 2002-2006/PY
L59           8 L47 NOT 2002-2006/PY

TOTAL FOR ALL FILES
L60         531 L48 NOT 2002-2006/PY

=> dup rem l60
PROCESSING COMPLETED FOR L60
L61          192 DUP REM L60 (339 DUPLICATES REMOVED)

=> d tot

L61  ANSWER 1 OF 192  WPIDS  COPYRIGHT 2006 THE THOMSON CORP on STN
TI   New nucleic acid encoding mammalian capping enzyme, useful for catalyzing
     formation of RNA 5'-terminal GpppN cap complex and in complementation
     assay to identify and/or monitor genetic defect in capping pathway.
PI   US 6312926      B1 20011106 (200203)*      47    C12P019-34
IN   MALDONADO, E; PILLUTLA, R; REINBERG, D; SHATKIN, A J; YUE, Z

L61  ANSWER 2 OF 192  WPIDS  COPYRIGHT 2006 THE THOMSON CORP on STN
TI   Generating a complete full-length cDNA library from single cells for use
     in gene chip technology, involves reverse transcribing intracellular
     mRNAs, adding polynucleotide tail and amplifying formed cDNAs.
PI   US 6197554      B1 20010306 (200125)*      11    C12P019-34
IN   CHUONG, C; LIN, S; YING, S

L61  ANSWER 3 OF 192  HCAPLUS  COPYRIGHT 2006 ACS on STN
TI   Executioner caspase-3, -6, and -7 perform distinct, non-redundant roles
     during the demolition phase of apoptosis
SO   Journal of Biological Chemistry (2001), 276(10), 7320-7326
     CODEN: JBCHA3; ISSN: 0021-9258
AU   Slee, Elizabeth A.; Adrain, Colin; Martin, Seamus J.
AN   2001:276527  HCAPLUS
DN   134:349517

L61  ANSWER 4 OF 192  HCAPLUS  COPYRIGHT 2006 ACS on STN
TI   Quantification of in vitro retroviral replication using a one-tube
     real-time RT-PCR system incorporating direct RNA preparation
SO   Journal of Virological Methods (2001), 91(2), 149-155
     CODEN: JVMEDH; ISSN: 0166-0934
AU   Bisset, L. R.; Bosbach, S.; Tomasik, Z.; Lutz, H.; Schupbach, J.; Boni, J.
AN   2001:74729  HCAPLUS
DN   135:221944

L61  ANSWER 5 OF 192  BIOSIS  COPYRIGHT (c) 2006 The Thomson Corporation  on
     STN                                                  DUPLICATE 1
TI   Isolation of a novel deoxyribonuclease with antifungal activity from
     Asparagus officinalis seeds.
SO   Biochemical and Biophysical Research Communications, (November 23, 2001)
     Vol. 289, No. 1, pp. 120-124. print.
     CODEN: BBRCA9. ISSN: 0006-291X.
AU   Wang, Hexiang; Ng, T. B. [Reprint author]
AN   2002:40724  BIOSIS

L61  ANSWER 6 OF 192  HCAPLUS  COPYRIGHT 2006 ACS on STN DUPLICATE 2
```

TI RNA polymerase chain reaction for generating amplified mRNAs from limited mRNAs
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
IN Lin, Shi-Lung; Ying, Shao-Yao; Chuong, Cheng-Ming; Widelitz, Randall Bruce
AN 2000:881343 HCAPLUS
DN 134:37905

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000075356	A1	20001214	WO 1999-US12461	19990604
W: AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9943323	A1	20001228	AU 1999-43323	19990604

L61 ANSWER 7 OF 192 MEDLINE on STN DUPLICATE 3
TI Specific chaperone-like activity of inhibitor of caspase-activated DNase for caspase-activated DNase.
SO The Journal of biological chemistry, (2000 Mar 17) Vol. 275, No. 11, pp. 8091-6.
Journal code: 2985121R. ISSN: 0021-9258.
AU Sakahira H; Iwamatsu A; Nagata S
AN 2000179917 MEDLINE

L61 ANSWER 8 OF 192 Elsevier BIOBASE COPYRIGHT 2006 Elsevier Science B.V. on STN
AN 2000214279 ESBIOBASE
TI First demonstration of lactoribonuclease, a ribonuclease from bovine milk with similarity to bovine pancreatic ribonuclease
AU Ye X.Y.; Ng T.B.
CS X.Y. Ye, Department of Biochemistry, Faculty of Medicine, Chinese University of Hong Kong, Shatin, New Territories, Hong Kong.
SO Life Sciences, (08 SEP 2000), 67/16 (2025-2032), 15 reference(s)
CODEN: LIFSAK ISSN: 0024-3205
PUI S0024320500007840
DT Journal; Article
CY United States
LA English
SL English

L61 ANSWER 9 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Purification of a novel apolipoprotein H-like milk protein with ribonucleolytic and cell-free translation inhibitory activities
SO Life Sciences (2000), 67(8), 887-894
CODEN: LIFSAK; ISSN: 0024-3205
AU Ye, X. Y.; Ng, T. B.
AN 2000:531051 HCAPLUS
DN 133:234167

L61 ANSWER 10 OF 192 MEDLINE on STN DUPLICATE 4
TI Ribonuclease, cell-free translation -inhibitory and superoxide radical scavenging activities of the iron-binding protein lactoferrin from bovine milk.
SO The international journal of biochemistry & cell biology, (2000 Feb) Vol. 32, No. 2, pp. 235-41.
Journal code: 9508482. ISSN: 1357-2725.
AU Ye X Y; Wang H X; Liu F; Ng T B
AN 2000150665 MEDLINE

L61 ANSWER 11 OF 192 MEDLINE on STN DUPLICATE 5
TI Quinqueginsin, a novel protein with anti-human immunodeficiency virus, antifungal, ribonuclease and cell-free translation-inhibitory activities from American ginseng roots.
SO Biochemical and biophysical research communications, (2000 Mar 5) Vol. 269, No. 1, pp. 203-8.
Journal code: 0372516. ISSN: 0006-291X.
AU Wang H X; Ng T B
AN 2000160473 MEDLINE

L61 ANSWER 12 OF 192 MEDLINE on STN DUPLICATE 6
TI Stabilization effect of zeolite on DHFR mRNA in a wheat germ cell -free protein synthesis system.
SO Journal of bioscience and bioengineering, (2000) Vol. 89, No. 2, pp. 193-5.
Journal code: 100888800. ISSN: 1389-1723.
AU Jung G Y; Lee E Y; Kim Y; Jung B W; Kang S H; Choi C Y
AN 2005557039 MEDLINE

L61 ANSWER 13 OF 192 MEDLINE on STN DUPLICATE 7
TI Post-transcriptional regulation of rat CYP2E1 expression: role of CYP2E1 mRNA untranslated regions in control of translational efficiency and message stability.
SO Archives of biochemistry and biophysics, (2000 Apr 1) Vol. 376, No. 1, pp. 180-90.
Journal code: 0372430. ISSN: 0003-9861.
AU Kocarek T A; Zangar R C; Novak R F
AN 2000195423 MEDLINE

L61 ANSWER 14 OF 192 MEDLINE on STN DUPLICATE 8
TI Dolichin, a new chitinase-like antifungal protein isolated from field beans (Dolichos lablab).
SO Biochemical and biophysical research communications, (2000 Mar 5) Vol. 269, No. 1, pp. 155-9.
Journal code: 0372516. ISSN: 0006-291X.
AU Ye X Y; Wang H X; Ng T B
AN 2000160466 MEDLINE

L61 ANSWER 15 OF 192 MEDLINE on STN DUPLICATE 9
TI An easy cell-free protein synthesis system dependent on the addition of crude Escherichia coli tRNA.
SO Journal of biochemistry, (2000 Jan) Vol. 127, No. 1, pp. 37-41.
Journal code: 0376600. ISSN: 0021-924X.
AU Kanda T; Takai K; Yokoyama S; Takaku H
AN 2000198205 MEDLINE

L61 ANSWER 16 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Caspase-3 is the primary activator of apoptotic DNA fragmentation via DNA fragmentation factor-45/inhibitor of caspase-activated DNase inactivation.
SO Journal of Biological Chemistry, (Oct. 22, 1999) Vol. 274, No. 43, pp. 30651-30656. print.
CODEN: JBCHA3. ISSN: 0021-9258.
AU Wolf, Beni B. [Reprint author]; Schuler, Martin; Echeverri, Fernando; Green, Douglas R.
AN 2000:433616 BIOSIS

L61 ANSWER 17 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Ribonuclease activity of rat liver perchloric acid-soluble protein, a potent inhibitor of protein synthesis.
SO Journal of Biological Chemistry, (July 16, 1999) Vol. 274, No. 29, pp.

20688-20692. print.
CODEN: JBCHA3. ISSN: 0021-9258.
AU Morishita, Ryo; Kawagoshi, Akihito; Sawasaki, Tatsuya; Madin, Kairat; Ogasawara, Tomio; Oka, Tatsuzo; Endo, Yaeta [Reprint author]
AN 1999:467435 BIOSIS

L61 ANSWER 18 OF 192 MEDLINE on STN DUPLICATE 10
TI Functional differences of two forms of the inhibitor of caspase-activated DNase, ICAD-L, and ICAD-S.
SO The Journal of biological chemistry, (1999 May 28) Vol. 274, No. 22, pp. 15740-4.
Journal code: 2985121R. ISSN: 0021-9258.
AU Sakahira H; Enari M; Nagata S
AN 1999269116 MEDLINE

L61 ANSWER 19 OF 192 MEDLINE on STN DUPLICATE 11
TI Inhibitors of DNA strand transfer reactions catalyzed by HIV-1 reverse transcriptase.
SO Biochemistry, (1999 Oct 5) Vol. 38, No. 40, pp. 13070-6.
Journal code: 0370623. ISSN: 0006-2960.
AU Gabbara S; Davis W R; Hupe L; Hupe D; Peliska J A
AN 1999459252 MEDLINE

L61 ANSWER 20 OF 192 MEDLINE on STN DUPLICATE 12
TI Comparative inhibitory potential of differently modified antisense oligodeoxynucleotides on hepatitis C virus translation.
SO European journal of clinical investigation, (1999 Oct) Vol. 29, No. 10, pp. 868-76.
Journal code: 0245331. ISSN: 0014-2972.
AU Alt M; Eisenhardt S; Serwe M; Renz R; Engels J W; Caselmann W H
AN 2000051274 MEDLINE

L61 ANSWER 21 OF 192 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 13
TI Negative regulation of the pts operon by Mlc: mechanism underlying glucose induction in Escherichia coli
SO Genes to Cells [Genes Cells], (19990700) vol. 4, no. 7, pp. 391-399.
ISSN: 1356-9597.
AU Tanaka, Y.; Kimata, K.; Inada, T.; Tagami, H.; Aiba, H.
AN 1999:111994 LIFESCI

L61 ANSWER 22 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI Self-association of Puralpha is mediated by RNA.
SO Journal of Cellular Biochemistry, (Sept. 1, 1999) Vol. 74, No. 3, pp. 334-348. print.
CODEN: JCEBD5. ISSN: 0730-2312.
AU Gallia, Gary L.; Darbinian, Nune; Johnson, Edward M.; Khalili, Kamel [Reprint author]
AN 1999:377823 BIOSIS

L61 ANSWER 23 OF 192 MEDLINE on STN DUPLICATE 14
TI In vivo and in vitro processing of the Bacillus subtilis transcript coding for glutamyl-tRNA synthetase, serine acetyltransferase, and cysteinyl-tRNA synthetase.
SO RNA (New York, N.Y.), (1999 Feb) Vol. 5, No. 2, pp. 281-9.
Journal code: 9509184. ISSN: 1355-8382.
AU Pelchat M; Lapointe J
AN 1999146784 MEDLINE

L61 ANSWER 24 OF 192 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 15
TI Poly[G] improved protein productivity of cell-free translation by inhibiting mRNase in wheat germ extract
SO JOURNAL OF BIOTECHNOLOGY, (8 OCT 1999) Vol. 75, No. 2-3, pp. 221-228.
ISSN: 0168-1656.

AU Shen X C; Yao S L; Fukano H; Terada S; Kitayama A; Nagamune T; Suzuki E (Reprint)
AN 1999:862003 SCISEARCH

L61 ANSWER 25 OF 192 MEDLINE on STN DUPLICATE 16
TI Single amino acid substitutions at the N-terminus of a recombinant cytotoxic ribonuclease markedly influence biochemical and biological properties.
SO Biochemistry, (1998 Apr 14) Vol. 37, No. 15, pp. 5173-83.
Journal code: 0370623. ISSN: 0006-2960.
AU Newton D L; Boque L; Wlodawer A; Huang C Y; Rybak S M
AN 1998215642 MEDLINE

L61 ANSWER 26 OF 192 MEDLINE on STN DUPLICATE 17
TI Production and characterisation of a recombinant single-chain anti ErbB2-clavin immunotoxin.
SO Anticancer research, (1998 Sep-Oct) Vol. 18, No. 5A, pp. 3369-73.
Journal code: 8102988. ISSN: 0250-7005.
AU D'Alatri L; Di Massimo A M; Anastasi A M; Pacilli A; Novelli S; Saccinto M P; De Santis R; Mele A; Parente D
AN 1999076007 MEDLINE

L61 ANSWER 27 OF 192 MEDLINE on STN DUPLICATE 18
TI Phosphatase-immunodepleted cell-free protein synthesis system.
SO Journal of biotechnology, (1998 May 13) Vol. 61, No. 3, pp. 199-208.
Journal code: 8411927. ISSN: 0168-1656.
AU Kawarasaki Y; Nakano H; Yamane T
AN 1998348963 MEDLINE

L61 ANSWER 28 OF 192 MEDLINE on STN DUPLICATE 19
TI Fluorescence quenching and dequenching analysis of RNA interactions in vitro and in vivo.
SO Analytical biochemistry, (1998 Nov 15) Vol. 264, No. 2, pp. 133-40.
Journal code: 0370535. ISSN: 0003-2697.
AU Kwon S; Carson J H
AN 1999083906 MEDLINE

L61 ANSWER 29 OF 192 MEDLINE on STN DUPLICATE 20
TI Ribonucleolytic activities in the Escherichia coli in vitro translation system and in its separate components.
SO FEBS letters, (1997 Sep 8) Vol. 414, No. 2, pp. 362-4.
Journal code: 0155157. ISSN: 0014-5793.
AU Fuchs U; Stiege W; Erdmann V A
AN 97459759 MEDLINE

L61 ANSWER 30 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Specific inhibition of in vitro reverse transcription using antisense oligonucleotides targeted to the TAR regions of HIV-1 and HIV-2
SO Biochimica et Biophysica Acta, Gene Structure and Expression (1997), 1351(3), 249-255
CODEN: BBGSD5; ISSN: 0167-4781
AU Boulme, Florence; Peraelae-Heape, Maritta; Sarih-Cottin, Leila; Litvak, Simon
AN 1997:177531 HCAPLUS
DN 126:273139

L61 ANSWER 31 OF 192 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 21
TI Inhibition of in vitro translation by antisense oligonucleotides covalently linked to a nucleic acid cleaver based on a cationic manganese porphyrin motif, Mn-TrisMPyP
SO NEW JOURNAL OF CHEMISTRY, (JAN 1997) Vol. 21, No. 1, pp. 55-60.
ISSN: 1144-0546.

AU Duarte V (Reprint); Pratviel G; Meunier B; Berton M; Sixou S; Favre G
AN 1997:172278 SCISEARCH

L61 ANSWER 32 OF 192 MEDLINE on STN DUPLICATE 22
TI Positive and negative host factors for Sendai virus transcription and their organ distribution in rat.
SO Archives of virology, (1996) Vol. 141, No. 9, pp. 1623-35.
Journal code: 7506870. ISSN: 0304-8608.
AU Takagi T; Iwama M; Seta K; Kanda T; Tsukamoto T; Tominaga S; Mizumoto K
AN 97049056 MEDLINE

L61 ANSWER 33 OF 192 MEDLINE on STN DUPLICATE 23
TI Heat shock selectively inhibits ribosomal RNA gene transcription and down-regulates E1BF/Ku in mouse lymphosarcoma cells.
SO The Biochemical journal, (1996 Aug 1) Vol. 317 (Pt 3), pp. 689-95.
Journal code: 2984726R. ISSN: 0264-6021.
AU Ghoshal K; Jacob S T
AN 96332458 MEDLINE

L61 ANSWER 34 OF 192 MEDLINE on STN DUPLICATE 24
TI Escherichia coli RNase HI inhibits murine leukaemia virus reverse transcription in vitro and yeast retrotransposon Ty1 transposition in vivo.
SO Genes to cells : devoted to molecular & cellular mechanisms, (1996 Jun) Vol. 1, No. 6, pp. 581-93.
Journal code: 9607379. ISSN: 1356-9597.
AU Ma W P; Crouch R J
AN 97233197 MEDLINE

L61 ANSWER 35 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Recent advances in cell-free protein synthesis towards a protein biosynthesizer
SO Annals of the New York Academy of Sciences (1996), 799(Enzyme Engineering XIII), 406-412
CODEN: ANYAA9; ISSN: 0077-8923
AU Nakano, Hideo; Kawarasaki, Yasuaki; Yamane, Tsuneo
AN 1997:103471 HCAPLUS
DN 126:143375

L61 ANSWER 36 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Copper ion in protein synthesis in an in vitro system
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
IN Nishimura, Kunihiro; Kitaoka, Yoshihisa; Niwano, Mitsuru
AN 1995:712283 HCAPLUS
DN 123:81768

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07147992	A2	19950613	JP 1993-300493	19931130

L61 ANSWER 37 OF 192 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
TI Purificn. of mRNA from cells - by extraction with a guanidine salt, dilution and separation by binding to oligo dT or oligo U.

PI	US 5459253	A	19951017 (199547)*	8	C12N015-10
	US 5614391	A	19970325 (199718)	8	C07H001-00

IN FRANCISKOVICH, P P; WOLIN, C D

L61 ANSWER 38 OF 192 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 25
TI SEQUENCE-SPECIFIC INHIBITION OF HUMAN-IMMUNODEFICIENCY-VIRUS (HIV) REVERSE TRANSCRIPTION BY ANTISENSE OLIGONUCLEOTIDES - COMPARATIVE-STUDY IN CELL-FREE ASSAYS AND IN HIV-INFECTED CELLS
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (26 SEP 1995) Vol. 92, No. 20, pp. 9383-9387.

ISSN: 0027-8424.
AU BORDIER B (Reprint); PERALAHEAPE M; DEGOLS G; LEBLEU B; LITVAK S; SARIHCOTTIN L; HELENE C
AN 1995:660510 SCISEARCH

L61 ANSWER 39 OF 192 MEDLINE on STN DUPLICATE 26
TI Site and mechanism of antisense inhibition by C-5 propyne oligonucleotides.
SO Biochemistry, (1995 Apr 18) Vol. 34, No. 15, pp. 5044-53.
Journal code: 0370623. ISSN: 0006-2960.
AU Moulds C; Lewis J G; Froehler B C; Grant D; Huang T; Milligan J F; Matteucci M D; Wagner R W
AN 95226391 MEDLINE

L61 ANSWER 40 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI RNase H is responsible for the non-specific inhibition of in vitro translation by 2'-O-alkyl chimeric oligonucleotides: high affinity or selectivity, a dilemma to design antisense oligomers
SO Nucleic Acids Research (1995), 23(17), 3434-40
CODEN: NARHAD; ISSN: 0305-1048
AU Larrouy, Beatrice; Boiziau, Claudine; Sproat, Brian; Toulme, Jean-Jacques
AN 1995:836316 HCAPLUS
DN 124:139467

L61 ANSWER 41 OF 192 MEDLINE on STN DUPLICATE 27
TI Inhibition of HIV-1 reverse transcription by triple-helix forming oligonucleotides with viral RNA.
SO Nucleic acids research, (1995 Apr 11) Vol. 23, No. 7, pp. 1204-12.
Journal code: 0411011. ISSN: 0305-1048.
AU Volkmann S; Jendis J; Frauendorf A; Moelling K
AN 95258330 MEDLINE

L61 ANSWER 42 OF 192 MEDLINE on STN DUPLICATE 28
TI A potent, cost-effective RNase inhibitor.
SO BioTechniques, (1995 Jun) Vol. 18, No. 6, pp. 1068-73.
Journal code: 8306785. ISSN: 0736-6205.
AU Murphy N R; Leinbach S S; Hellwig R J
AN 96023391 MEDLINE

L61 ANSWER 43 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Improvement of Escherichia coli cell-free system by utilization of cell extract having additional property. Problems and countermeasures
SO Applied Biochemistry and Biotechnology (1995), 53(1), 29-35
CODEN: ABIBDL; ISSN: 0273-2289
AU Nishimura, Norihiro; Kitaoka, Yoshihisa; Niwano, Mitsuru
AN 1995:556345 HCAPLUS
DN 122:308896

L61 ANSWER 44 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Methods for screening compounds for potential inhibitors of translation of viral RNAs for use as antiviral agents
SO PCT Int. Appl., 194 pp.
CODEN: PIXXD2
IN Miles, Vincent J.; Mathews, Michael B.; Katze, Michael G.; Witherell, Gary; Watson, Julia C.
AN 1995:358745 HCAPLUS
DN 122:123089

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9423041	A2	19941013	WO 1994-US3623	19940401
	WO 9423041	A3	19950105		

W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, UZ, VN
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,

BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

CA 2159639	AA	19941013	CA 1994-2159639	19940401
AU 9464976	A1	19941024	AU 1994-64976	19940401
EP 693126	A1	19960124	EP 1994-912387	19940401
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
JP 08509213	T2	19961001	JP 1994-522423	19940401

L61 ANSWER 45 OF 192 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
TI Protein preparation - by using cell-free protein synthesis system e.g. wheat germ extract.
PI JP 06225783 A 19940816 (199437)* 5 C12P021-00

L61 ANSWER 46 OF 192 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI TARGET-SPECIFIC ARREST OF MESSENGER-RNA TRANSLATION BY ANTISENSE 2'-O-ALKYLOLIGORIBONUCLEOTIDES
SO NUCLEIC ACIDS RESEARCH, (11 NOV 1994) Vol. 22, No. 22, pp. 4591-4598. ISSN: 0305-1048.
AU JOHANSSON H E (Reprint); BELSHAM G J; SPROAT B S; HENTZE M W
AN 1994:760911 SCISEARCH

L61 ANSWER 47 OF 192 MEDLINE on STN
TI In vitro transcription: preparative RNA yields in analytical scale reactions.
SO Analytical biochemistry, (1994 Aug 1) Vol. 220, No. 2, pp. 420-3. Journal code: 0370535. ISSN: 0003-2697.
AU Pokrovskaya I D; Gurevich V V
AN 95068955 MEDLINE

L61 ANSWER 48 OF 192 MEDLINE on STN DUPLICATE 29
TI Characterization of the mechanism of cellular and cell free protein synthesis inhibition by an anti-tumor ribonuclease.
SO Biochemical and biophysical research communications, (1994 Oct 14) Vol. 204, No. 1, pp. 156-62. Journal code: 0372516. ISSN: 0006-291X.
AU Lin J J; Newton D L; Mikulski S M; Kung H F; Youle R J; Rybak S M
AN 95032089 MEDLINE

L61 ANSWER 49 OF 192 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 30
TI UTILIZATION OF COPPER-ION AS A RIBONUCLEASE INHIBITOR IN A CELL-FREE PROTEIN-SYNTHESIS SYSTEM
SO JOURNAL OF FERMENTATION AND BIOENGINEERING, (1994) Vol. 78, No. 2, pp. 130-133. ISSN: 0922-338X.
AU NISHIMURA N (Reprint); KITAOKA Y; NIWANO M
AN 1994:552143 SCISEARCH

L61 ANSWER 50 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Enzymic activity of melonin, a translational inhibitor present in dry seeds of Cucumis melo L.
SO Plant Science (Shannon, Ireland) (1994), 103(2), 127-34 CODEN: PLSCE4; ISSN: 0168-9452
AU Rojo, M. Angeles; Arias, F. Javier; Iglesias, Rosario; Ferreras, J. Miguel; Soriano, Fernando; Mendez, Enrique; Escarmis, Cristina; Girbes, Tomas
AN 1995:269625 HCAPLUS
DN 122:181571

L61 ANSWER 51 OF 192 MEDLINE on STN DUPLICATE 31
TI In vitro translation of an intact mRNA coding for a poly(U), poly(C) specific ribonuclease isolated from six-day-old larvae of Ceratitis capitata by a modified extraction

procedure.
SO Biochemistry and molecular biology international, (1994 Aug) Vol. 34, No. 1, pp. 37-45.
Journal code: 9306673. ISSN: 1039-9712.
AU Lalioti V S; Fragoulis E G
AN 95152415 MEDLINE

L61 ANSWER 52 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Simple isolation of functional RNA from woody stems of gymnosperms
SO Plant Molecular Biology Reporter (1994), 12(1), 20-5
CODEN: PMBRD4; ISSN: 0735-9640
AU Lewinsohn, Efraim; Steele, Christopher L.; Croteau, Rodney
AN 1994:503437 HCAPLUS
DN 121:103437

L61 ANSWER 53 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI In vitro inhibition of the pim-1 protooncogene by chimeric oligodeoxyribonucleotides composed of α- and β-anomeric fragments
SO Gene (1994), 149(1), 5-12
CODEN: GENED6; ISSN: 0378-1119
AU Gottikh, Marina; Baud-Demattei, Marie Veronique; Lescot, Elie; Giorgi-Renault, Sylviane; Shabarova, Zoe; Dautry, Francois; Malvy, Claude; Bertrand, Jean-Remi
AN 1995:217606 HCAPLUS
DN 122:96437

L61 ANSWER 54 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Coupled transcription and translation in eukaryoteic cell-free extract
SO PCT Int. Appl., 60 pp.
CODEN: PIXXD2
IN Thompson, David V.; Van Oosbree, Thomas R.
AN 1993:229729 HCAPLUS
DN 118:229729

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9307287	A1	19930415	WO 1992-US8518	19921007
	W: AU, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
	AU 9227921	A1	19930503	AU 1992-27921	19921007
	AU 660329	B2	19950622		
	EP 566714	A1	19931027	EP 1992-922343	19921007
	EP 566714	B1	19970102		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE				
	JP 06503477	T2	19940421	JP 1993-507150	19921007
	JP 2904583	B2	19990614		
	AT 147104	E	19970115	AT 1992-922343	19921007
	ES 2097363	T3	19970401	ES 1992-922343	19921007

L61 ANSWER 55 OF 192 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
TI Polypeptide synthesis with automatic regeneration of ATP and GTP - uses cell-free translation system with ATP, GTp and aminoacid as substrates.
PI JP 05076381 A 19930330 (199317)* 4 C12P021-00

L61 ANSWER 56 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI A Cucumis sativus cell-free translation system: preparation, optimization and sensitivity to some antibiotics and ribosome-inactivating proteins
SO Physiologia Plantarum (1993), 88(4), 549-56
CODEN: PHPLAI; ISSN: 0031-9317
AU Rojo, M. A.; Arias, F. J.; Iglesias, R.; Ferreras, J. M.; Munoz, R.; Girbes, T.
AN 1993:643690 HCAPLUS

DN 119:243690

L61 ANSWER 57 OF 192 MEDLINE on STN DUPLICATE 32
TI Targeting of antisense DNA: comparison of activity of anti-rabbit beta-globin oligodeoxyribonucleoside phosphorothioates with computer predictions of mRNA folding.
SO Antisense research and development, (1993 Winter) Vol. 3, No. 4, pp. 339-48.
Journal code: 9110698. ISSN: 1050-5261.
AU Jaroszewski J W; Syi J L; Ghosh M; Ghosh K; Cohen J S
AN 94207285 MEDLINE

L61 ANSWER 58 OF 192 MEDLINE on STN DUPLICATE 33
TI Characterization and sequencing of rabbit, pig and mouse angiogenins: discernment of functionally important residues and regions.
SO Biochimica et biophysica acta, (1993 Mar 5) Vol. 1162, No. 1-2, pp. 177-86.
Journal code: 0217513. ISSN: 0006-3002.
AU Bond M D; Strydom D J; Vallee B L
AN 93192291 MEDLINE

L61 ANSWER 59 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 34
TI Rapid and efficient purification of seed messenger RNA without phenol:chloroform extraction.
SO Seed Science Research, (1993) Vol. 3, No. 2, pp. 137-139.
ISSN: 0960-2585.
AU Pramanik, S. K. [Reprint author]; Reynolds, T. L.; Maclsaac, S. A.; Bewley, J. D.
AN 1993:432879 BIOSIS

L61 ANSWER 60 OF 192 MEDLINE on STN DUPLICATE 35
TI Characterization of ribonuclease H activities present in two cell-free protein synthesizing systems, the wheat germ extract and the rabbit reticulocyte lysate.
SO Biochimie, (1993) Vol. 75, No. 1-2, pp. 113-22.
Journal code: 1264604. ISSN: 0300-9084.
AU Cazenave C; Frank P; Busen W
AN 93277966 MEDLINE

L61 ANSWER 61 OF 192 MEDLINE on STN DUPLICATE 36
TI Inactivation of ribosomes by an inhibitor of protein synthesis from Salmonella enteritidis.
SO The new microbiologica : official journal of the Italian Society for Medical, Odontoiatric, and Clinical Microbiology (SIMMOC), (1993 Jan) Vol. 16, No. 1, pp. 79-22.
Journal code: 9516291. ISSN: 1121-7138.
AU Brigotti M; Nanetti A; Montanaro L; Sperti S
AN 93225882 MEDLINE

L61 ANSWER 62 OF 192 MEDLINE on STN DUPLICATE 37
TI RNase H-mediated inhibition of translation by antisense oligodeoxyribonucleotides: use of backbone modification to improve specificity.
SO Gene, (1992 Nov 16) Vol. 121, No. 2, pp. 189-94.
Journal code: 7706761. ISSN: 0378-1119.
AU Larrouy B; Blonski C; Boiziau C; Stuer M; Moreau S; Shire D; Toulme J J
AN 93077031 MEDLINE

L61 ANSWER 63 OF 192 MEDLINE on STN DUPLICATE 38
TI Translation inhibition by phosphorothioate oligodeoxynucleotides in cell-free systems.
SO Antisense research and development, (1992 Summer) Vol. 2, No. 2, pp. 111-8.
Journal code: 9110698. ISSN: 1050-5261.

AU Ghosh M K; Ghosh K; Cohen J S
AN 93005522 MEDLINE

L61 ANSWER 64 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 39
TI APPLICATION OF FORMALDEHYDE AGAROSE GELS TO DETECT RNASE CONTAMINATION IN REAGENTS USED IN RNA WORK.
SO Methods in Molecular and Cellular Biology, (1992) Vol. 3, No. 2, pp. 71-76.
CODEN: MMCBEV. ISSN: 0898-7750.
AU MCKENZIE D [Reprint author]; RANGANATHAN R; CALVO-RIERA F
AN 1992:343341 BIOSIS

L61 ANSWER 65 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Method for obtaining polypeptides in a cell-free translation system
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
IN Ovodov, S. Yu.; Baranov, V. I.; Alakhov, Yu. B.; Ryabova, L. A.
AN 1991:554530 HCAPLUS
DN 115:154530

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9102075	A1	19910221	WO 1990-SU145	19900605
W: BG, CA, FI, HU, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
CA 2064685	AA	19910201	CA 1990-2064685	19900605
CA 2064685	C	19960618		
EP 485608	A1	19920520	EP 1990-912889	19900605
EP 485608	B1	19951122		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
JP 05505095	T2	19930805	JP 1990-512062	19900605
JP 2891540	B2	19990517		
AT 130633	E	19951215	AT 1990-912889	19900605
US 5478730	A	19951226	US 1992-991757	19921216

L61 ANSWER 66 OF 192 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
TI Polypeptide production in cell-free system - by translation of matrix RNA modified by alkylation.
PI WO 9102074 A 19910221 (199110)*
RW: AT BE CH DE DK ES FR GB IT LU NL SE
W: BG CA FI HU JP US
IN ALAKHOV, J B; OVODOV, S J

L61 ANSWER 67 OF 192 MEDLINE on STN DUPLICATE 40
TI Effect of heparin contained in preparations of small cytoplasmic RNAs on cell-free translation.
SO The Journal of biological chemistry, (1991 Jan 25) Vol. 266, No. 3, pp. 1921-5.
Journal code: 2985121R. ISSN: 0021-9258.
AU Johansson H E; De Groot N; Hochberg A A; Hentze M W
AN 91107699 MEDLINE

L61 ANSWER 68 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Inhibition of translation initiation by antisense oligonucleotides via an RNase-H independent mechanism
SO Nucleic Acids Research (1991), 19(5), 1113-19
CODEN: NARHAD; ISSN: 0305-1048
AU Boiziau, Claudine; Kurfurst, Robin; Cazenave, Christian; Roig, Victoria; Nguyen Thanh Thuong; Toulme, Jean Jacques
AN 1991:507478 HCAPLUS
DN 115:107478

L61 ANSWER 69 OF 192 MEDLINE on STN DUPLICATE 41
TI Short modified antisense oligonucleotides directed against Ha-ras point

mutation induce selective cleavage of the mRNA and inhibit T24 cells proliferation.
SO The EMBO journal, (1991 May) Vol. 10, No. 5, pp. 1111-8.
Journal code: 8208664. ISSN: 0261-4189.
AU Saison-Behmoaras T; Tocque B; Rey I; Chassignol M; Thuong N T; Helene C
AN 91216105 MEDLINE

L61 ANSWER 70 OF 192 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 42
TI ACTION OF THE STYLE PRODUCT OF THE SELF-INCOMPATIBILITY GENE OF NICOTIANA-ALATA (S-RNASE) ON INVITRO-GROWN POLLEN TUBES
SO PLANT CELL, (MAR 1991) Vol. 3, No. 3, pp. 271-283.
ISSN: 1040-4651.
AU GRAY J E (Reprint); MCCLURE B A; BONIG I; ANDERSON M A; CLARKE A E
AN 1991:196074 SCISEARCH

L61 ANSWER 71 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Purification of RNA
SO Essent. Mol. Biol. (1991), Volume 1, 69-87. Editor(s): Brown, Terence A. Publisher: IRL, Oxford, UK.
CODEN: 59FGAZ
AU Wilkinson, Miles
AN 1993:532433 HCAPLUS
DN 119:132433

L61 ANSWER 72 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 43
TI Cancer diagnosis using the polymerase chain reaction
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
IN Balazs, Viktor; Balazs-Froehlich, Margit
AN 1991:554486 HCAPLUS
DN 115:154486

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9009456	A1	19900823	WO 1990-DE102	19900216
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
EP 458831	A1	19911204	EP 1990-903145	19900216
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				

L61 ANSWER 73 OF 192 MEDLINE on STN DUPLICATE 44
TI Replacement of residues 8-22 of angiogenin with 7-21 of RNase A selectively affects protein synthesis inhibition and angiogenesis.
SO Biochemistry, (1990 Apr 3) Vol. 29, No. 13, pp. 3341-9.
Journal code: 0370623. ISSN: 0006-2960.
AU Bond M D; Vallee B L
AN 90241913 MEDLINE

L61 ANSWER 74 OF 192 MEDLINE on STN DUPLICATE 45
TI Glucocorticoid-induced stimulation of ribosomal gene transcription in rat hepatoma cells is mediated by modification of RNA polymerase I or an associated factor.
SO Molecular endocrinology (Baltimore, Md.), (1989 Nov) Vol. 3, No. 11, pp. 1861-8.
Journal code: 8801431. ISSN: 0888-8809.
AU Webb M L; Mealey-Cavender J F; Jacob S T
AN 90114192 MEDLINE

L61 ANSWER 75 OF 192 LIFESCI COPYRIGHT 2006 CSA on STN
TI Cell-free translation in lysates from Spodoptera frugiperda (Lepidoptera: Noctuidae) cells.
SO COMP. BIOCHEM. PHYSIOL., B., (1989) vol. 93B, no. 4, pp. 803-306.
AU Swerdel, M.R.; Fallon, A.M.
AN 89:89073 LIFESCI

L61 ANSWER 76 OF 192 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 46
TI In vitro transcription by cytoplasmic extracts from cells infected with african swine fever virus.
SO VIROLOGY., (1989) vol. 173, no. 2, pp. 728-732.
AU Caeiro, F.; Costa, J.V.
AN 89:60441 LIFESCI

L61 ANSWER 77 OF 192 MEDLINE on STN DUPLICATE 47
TI Characterization of translation systems in vitro from three developmental stages of Strongylocentrotus purpuratus.
SO The Biochemical journal, (1989 Mar 1) Vol. 258, No. 2, pp. 553-61. Journal code: 2984726R. ISSN: 0264-6021.
AU Lopo A C; Lashbrook C C; Hershey J W
AN 89206761 MEDLINE

L61 ANSWER 78 OF 192 MEDLINE on STN DUPLICATE 48
TI C-terminal angiogenin peptides inhibit the biological and enzymatic activities of angiogenin.
SO Biochemical and biophysical research communications, (1989 Jul 14) Vol. 162, No. 1, pp. 535-43. Journal code: 0372516. ISSN: 0006-291X.
AU Rybak S M; Auld D S; St Clair D K; Yao Q Z; Fett J W
AN 89322296 MEDLINE

L61 ANSWER 79 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 49
TI EGG RIBOSOMES OF ARGAS-ARBOREUS ACARI ARGASIDAE.
SO Journal of Medical Entomology, (1989) Vol. 26, No. 5, pp. 414-419. CODEN: JMENA6. ISSN: 0022-2585.
AU GADALLAH A I [Reprint author]; ROSHDY M A; MARZOUK A S; MAIN A J
AN 1989:493750 BIOSIS

L61 ANSWER 80 OF 192 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI Expression of human placental ribonuclease-inhibitor in Escherichia coli;
RNA-ase-inhibitor gene cloning
SO Biochem.Biophys.Res.Commun.; (1989) 160, 1, 115-20
CODEN: BBRCA9
AU Lee F S; *Vallee B L
AN 1989-07582 BIOTECHDS

L61 ANSWER 81 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Substrates resistant to 2'-5'-phosphodiesterase activity
SO U. S. Pat. Appl., 68 pp. Avail. NTIS Order No. PAT-APPL-7-72666.
CODEN: XAXXAV
IN Torrence, P. F.; Alster, D.; Wong, A. L.; Charubula, R.; Pfleiderer, W.
AN 1989:131357 HCAPLUS
DN 110:131357

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 72666	A0	19880301	US 1987-72666	19870713

L61 ANSWER 82 OF 192 MEDLINE on STN DUPLICATE 50
TI Human angiogenin, an organogenic protein.
SO British journal of cancer, (1988 Jun) Vol. 57, No. 6, pp. 587-90. Journal code: 0370635. ISSN: 0007-0920.
AU Riordan J F; Vallee B L
AN 88309634 MEDLINE

L61 ANSWER 83 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI RNA transcription in myocardial-cell nuclei during postnatal development. A study establishing an assay system for transcription in vitro
SO Biochemical Journal (1988), 256(2), 441-5

CODEN: BIJOAK; ISSN: 0306-3275
AU McCully, James D.; Liew, Choong Chin
AN 1989:72065 HCAPLUS
DN 110:72065

L61 ANSWER 84 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Light-regulated translation of chloroplast proteins. I. Transcripts of PsaA-PsaB, PsbA, and RbcL are associated with polysomes in dark-grown and illuminated barley seedlings
SO Journal of Cell Biology (1988), 106(2), 289-301
CODEN: JCLBA3; ISSN: 0021-9525
AU Klein, Robert R.; Mason, Hugh S.; Mullet, John E.
AN 1988:147348 HCAPLUS
DN 108:147348

L61 ANSWER 85 OF 192 MEDLINE on STN DUPLICATE 51
TI Cyclosporin A inhibits rDNA transcription in lymphosarcoma P1798 cells.
SO The Journal of biological chemistry, (1987 Nov 25) Vol. 262, No. 33, pp. 16150-6.
Journal code: 2985121R. ISSN: 0021-9258.
AU Mahajan P B; Thompson E A Jr
AN 88058980 MEDLINE

L61 ANSWER 86 OF 192 MEDLINE on STN DUPLICATE 52
TI Angiogenin abolishes cell-free protein synthesis by specific ribonucleolytic inactivation of ribosomes.
SO Proceedings of the National Academy of Sciences of the United States of America, (1987 Dec) Vol. 84, No. 23, pp. 8330-4.
Journal code: 7505876. ISSN: 0027-8424.
AU St Clair D K; Rybak S M; Riordan J F; Vallee B L
AN 88068588 MEDLINE

L61 ANSWER 87 OF 192 MEDLINE on STN DUPLICATE 53
TI Fractionation of transcription factors for RNA polymerase II from Drosophila Kc cell nuclear extracts.
SO The Journal of biological chemistry, (1987 Mar 5) Vol. 262, No. 7, pp. 3244-55.
Journal code: 2985121R. ISSN: 0021-9258.
AU Price D H; Sluder A E; Greenleaf A L
AN 87137603 MEDLINE

L61 ANSWER 88 OF 192 MEDLINE on STN DUPLICATE 54
TI An activity necessary for in vitro transcription is a DNase inhibitor.
SO Biochimie, (1987 Nov-Dec) Vol. 69, No. 11-12, pp. 1199-205.
Journal code: 1264604. ISSN: 0300-9084.
AU Sluder A E; Price D H; Greenleaf A L
AN 88193130 MEDLINE

L61 ANSWER 89 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI An efficient method for isolation of polysomes from Chlamydomonas reinhardtii CW15
SO Plant Molecular Biology Reporter (1987), 5(3), 336-45
CODEN: PMBRD4; ISSN: 0735-9640
AU Tabor, Paul S.; Cho, Chung Lung
AN 1988:606199 HCAPLUS
DN 109:206199

L61 ANSWER 90 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 55
TI DEPENDENCE OF THE QUALITY AND THE IN-VITRO TRANSLATION CAPACITY OF PINE RIBOSOME ASSEMBLIES ON THE ISOLATION PROCEDURE.
SO Physiologia Plantarum, (1987) Vol. 69, No. 2, pp. 271-277.
CODEN: PHPLAI. ISSN: 0031-9317.
AU KUPILA-AHVENNIEMI S [Reprint author]; MUHONEN A; MALINEN P

AN 1987:227669 BIOSIS

L61 ANSWER 91 OF 192 MEDLINE on STN DUPLICATE 56
TI Protein synthesis in cell-free reticulocyte lysates on multi-hour incubation.
SO Applied biochemistry and biotechnology, (1987 Oct) Vol. 15, No. 3, pp. 169-89.
Journal code: 8208561. ISSN: 0273-2289.
AU Findeis M A; Whitesides G M
AN 88292941 MEDLINE

L61 ANSWER 92 OF 192 MEDLINE on STN DUPLICATE 57
TI An improved method for mRNA isolation and characterization of in vitro translation products by Western blotting.
SO Gene, (1987) Vol. 56, No. 2-3, pp. 161-71.
Journal code: 7706761. ISSN: 0378-1119.
AU Simpson P J
AN 88056320 MEDLINE

L61 ANSWER 93 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI The use of single-stranded DNA and RNase H to promote quantitative 'hybrid arrest of translation' of mRNA/DNA hybrids in reticulocyte lysate cell-free translations
SO Nucleic Acids Research (1986), 14(16), 6433-51
CODEN: NARHAD; ISSN: 0305-1048
AU Minshull, Jeremy; Hunt, Tim
AN 1986:622117 HCAPLUS
DN 105:222117

L61 ANSWER 94 OF 192 MEDLINE on STN DUPLICATE 58
TI Inhibition of the import of mitochondrial proteins by RNase.
SO The Journal of biological chemistry, (1986 May 15) Vol. 261, No. 14, pp. 6153-5.
Journal code: 2985121R. ISSN: 0021-9258.
AU Burns D; Lewin A
AN 86196025 MEDLINE

L61 ANSWER 95 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI INHIBITORY EFFECT OF CHROMATIN PEPTIDES ON TRANSCRIPTION OF DNA AND NUCLEI OF NORMAL RAT LIVER AND HEPATOMA.
SO Acta Academiae Medicinae Sinicae, (1986) Vol. 8, No. 4, pp. 301-305.
CODEN: CIHPDR. ISSN: 1000-503X.
AU LI S [Reprint author]; LI S; HSIAO K; SHU S; YU Y
AN 1987:169321 BIOSIS

L61 ANSWER 96 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI The synthesis of high-molecular-weight proteins in the wheat germ translation system
SO Methods in Enzymology (1986), 118(Plant Mol. Biol.), 154-64
CODEN: MENZAU; ISSN: 0076-6879
AU Morch, M. D.; Drugeon, G.; Zagorski, W.; Haenni, A. L.
AN 1986:182799 HCAPLUS
DN 104:182799

L61 ANSWER 97 OF 192 MEDLINE on STN DUPLICATE 59
TI Specific transcription of preformed nucleoprotein complexes, containing the adenovirus major late promoter, with a chromatographic fraction containing RNA polymerase II.
SO Proceedings of the National Academy of Sciences of the United States of America, (1985 Oct) Vol. 82, No. 20, pp. 6769-73.
Journal code: 7505876. ISSN: 0027-8424.
AU Hellwig R J; Sinha S N; Niyogi S K
AN 86016781 MEDLINE

L61 ANSWER 98 OF 192 MEDLINE on STN DUPLICATE 60
TI In vitro study of the biological activity of RNAs after incubation of hog liver, heart and brain tissue at room temperature.
SO Biochimie, (1985 Jun) Vol. 67, No. 6, pp. 657-61.
Journal code: 1264604. ISSN: 0300-9084.
AU Reichert G H; Issinger O G
AN 86026500 MEDLINE

L61 ANSWER 99 OF 192 MEDLINE on STN DUPLICATE 61
TI Isolation and characterization of rat intestinal polyribosomes and RNA during absorption of fat. Increased translation in vitro of apo-AIV.
SO Biochemical and biophysical research communications, (1985 Jan 16) Vol. 126, No. 1, pp. 373-81.
Journal code: 0372516. ISSN: 0006-291X.
AU Pessah M; Salvat C; Amit N; Infante R
AN 85121891 MEDLINE

L61 ANSWER 100 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI INTERACTION OF A GENE-SPECIFIC TRANSCRIPTION FACTOR WITH THE ADENOVIRUS MAJOR LATE PROMOTER UPSTREAM OF THE TATA BOX REGION.
SO Cell, (1985) Vol. 43, No. 1, pp. 165-176.
CODEN: CELLB5. ISSN: 0092-8674.
AU SAWADOGO M [Reprint author]; ROEDER R G
AN 1986:142038 BIOSIS

L61 ANSWER 101 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI CORRELATION BETWEEN IMMUNOSUPPRESSIVE ACTIVITY AND TRANSLATION REGULATORY ACTIVITY.
SO Immunology Letters, (1985) Vol. 9, No. 2-3, pp. 123-130.
CODEN: IMLED6. ISSN: 0165-2478.
AU WANG K-C [Reprint author]; DOUGHERTY J; LEE S; IVERSON G M; GERSHON R K
AN 1985:352448 BIOSIS

L61 ANSWER 102 OF 192 MEDLINE on STN DUPLICATE 62
TI RNA required for import of precursor proteins into mitochondria.
SO Science, (1984 Dec 14) Vol. 226, No. 4680, pp. 1319-22.
Journal code: 0404511. ISSN: 0036-8075.
AU Firgaira F A; Hendrick J P; Kalousek F; Kraus J P; Rosenberg L E
AN 85065776 MEDLINE

L61 ANSWER 103 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Control of initiation of pMB1 replication: purified rop protein and RNA I affect primer formation in vitro
SO Cell (Cambridge, MA, United States) (1984), 37(3), 1009-14
CODEN: CELLB5; ISSN: 0092-8674
AU Lacatena, R. M.; Banner, D. W.; Castagnoli, L.; Cesareni, G.
AN 1984:544933 HCAPLUS
DN 101:144933

L61 ANSWER 104 OF 192 MEDLINE on STN DUPLICATE 63
TI Alzheimer's disease brain: alterations in RNA levels and in a ribonuclease-inhibitor complex.
SO Science, (1984 Aug 31) Vol. 225, No. 4665, pp. 947-9.
Journal code: 0404511. ISSN: 0036-8075.
AU Sajdel-Sulkowska E M; Marotta C A
AN 84300278 MEDLINE

L61 ANSWER 105 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI OLIGO NUCLEOTIDE STRUCTURAL PARAMETERS THAT INFLUENCE BINDING OF 5'-O TRIPHOSPHOADENYLYL-2'-5'-ADENYLYL-2'-5'-ADENOSINE TO THE 5'-O TRIPHOSPHOADENYLYL-2'-5'-ADENYLYL-2'-5'-ADENOSINE DEPENDENT

ENDORIBONUCLEASE CHAIN LENGTH PHOSPHORYLATION STATE AND HETEROCYCLIC BASE.
SO Journal of Medicinal Chemistry, (1984) Vol. 27, No. 6, pp. 727-733.
CODEN: JMCMAR. ISSN: 0022-2623.
AU TORRENCE P F [Reprint author]; IMAI J; LESIAK K; JAMOULLE J-C; SAWAI H
AN 1985:232226 BIOSIS

L61 ANSWER 106 OF 192 MEDLINE on STN DUPLICATE 64
TI Oligonucleotide structural parameters that influence binding of 5'-O-triphosphoadenylyl-(2'----5')-adenylyl-(2'----5')-adenosine to the 5'-O-triphosphoadenylyl-(2'----5')-adenylyl-(2'----5')-adenosine dependent endoribonuclease: chain length, phosphorylation state, and heterocyclic base.
SO Journal of medicinal chemistry, (1984 Jun) Vol. 27, No. 6, pp. 726-33.
Journal code: 9716531. ISSN: 0022-2623.
AU Torrence P F; Imai J; Lesiak K; Jamoulle J C; Sawai H
AN 84242717 MEDLINE

L61 ANSWER 107 OF 192 MEDLINE on STN DUPLICATE 65
TI Glucocorticoid inhibition of initiation of transcription of the DNA encoding rRNA (rDNA) in lymphosarcoma P1798 cells.
SO Proceedings of the National Academy of Sciences of the United States of America, (1984 Feb) Vol. 81, No. 3, pp. 718-21.
Journal code: 7505876. ISSN: 0027-8424.
AU Cavanaugh A H; Gokal P K; Lawther R P; Thompson E A Jr
AN 84144775 MEDLINE

L61 ANSWER 108 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 66
TI ISOLATION AND CHARACTERIZATION OF INHIBITORS OF ANIMAL CELL-FREE PROTEIN SYNTHESIS FROM BARLEY SEEDS.
SO Carlsberg Research Communications, (1984) Vol. 49, No. 7, pp. 619-626.
CODEN: CRCODS. ISSN: 0105-1938.
AU ASANO K [Reprint author]; SVENSSON B; POULSEN F M
AN 1985:328311 BIOSIS

L61 ANSWER 109 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Role of HMG nonhistone chromosomal proteins in the regulation of gene expression. I. Effects of HMG nonhistone proteins on the transcription activity and DNase I digestion of mouse liver nuclei
SO Shengwu Huaxue Yu Shengwu Wuli Xuebao (1984), 16(3), 239-48
CODEN: SHWPAU; ISSN: 0582-9879
AU Yan, Chongfa; He, Kailing
AN 1984:605202 HCAPLUS
DN 101:205202

L61 ANSWER 110 OF 192 MEDLINE on STN DUPLICATE 67
TI In vitro translation of Plasmodium falciparum proteins.
SO The Australian journal of experimental biology and medical science, (1984 Apr) Vol. 62 (Pt 2), pp. 125-35.
Journal code: 0416662. ISSN: 0004-945X.
AU Upcroft J; Chiu S; Kidson C
AN 84279757 MEDLINE

L61 ANSWER 111 OF 192 MEDLINE on STN DUPLICATE 68
TI Inhibition of ribonuclease activity during RNA synthesis in isolated yeast nuclei by cadmium.
SO FEBS letters, (1984 Mar 12) Vol. 168, No. 1, pp. 61-4.
Journal code: 0155157. ISSN: 0014-5793.
AU Schulz-Harder B; Thuroff E
AN 84158962 MEDLINE

L61 ANSWER 112 OF 192 MEDLINE on STN DUPLICATE 69
TI Isolation and characterization of actin from Entamoeba histolytica.
SO The Journal of biological chemistry, (1983 Mar 25) Vol. 258, No. 6, pp.

3936-41.
Journal code: 2985121R. ISSN: 0021-9258.
AU Meza I; Sabanero M; Cazares F; Bryan J
AN 83160939 MEDLINE

L61 ANSWER 113 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI 2',5'-Oligoadenylates and related 2',5'-oligonucleotide analogs. 2. Effect on cellular proliferation, protein synthesis, and endoribonuclease activity
SO Biochemistry (1983), 22(9), 2127-35
CODEN: BICHAW; ISSN: 0006-2960
AU Hughes, Bronwyn G.; Robins, Roland K.
AN 1983:176993 HCAPLUS
DN 98:176993

L61 ANSWER 114 OF 192 MEDLINE on STN DUPLICATE 70
TI Cell-free synthesis of rat alpha 2-macroglobulin and induction of its mRNA during experimental inflammation.
SO European journal of biochemistry / FEBS, (1983 Dec 1) Vol. 137, No. 1-2, pp. 257-62.
Journal code: 0107600. ISSN: 0014-2956.
AU Northemann W; Andus T; Gross V; Heinrich P C
AN 84084609 MEDLINE

L61 ANSWER 115 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Preparation of rough microsomes and membrane-bound polysomes that are active in protein synthesis in vitro
SO Methods in Enzymology (1983), 96(Biomembranes, Pt. J), 3-24
CODEN: MENZAU; ISSN: 0076-6879
AU Gaetani, Sancia; Smith, Julia A.; Feldman, Ricardo A.; Morimoto, Takashi
AN 1984:171112 HCAPLUS
DN 100:171112

L61 ANSWER 116 OF 192 MEDLINE on STN DUPLICATE 71
TI In vitro synthesis of type IV procollagen.
SO The Journal of biological chemistry, (1982 Dec 25) Vol. 257, No. 24, pp. 15151-5.
Journal code: 2985121R. ISSN: 0021-9258.
AU Kurkinen M; Foster L; Barlow D P; Hogan B L
AN 83082832 MEDLINE

L61 ANSWER 117 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 72
TI EFFECT OF RIBO NUCLEOSIDE VANADYL COMPLEXES ON ENZYME CATALYZED REACTIONS CENTRAL TO RECOMBINANT DNA TECHNOLOGY.
SO Biochemistry, (1982) Vol. 21, No. 19, pp. 4602-4608.
CODEN: BICHAW. ISSN: 0006-2960.
AU PUSKAS R S [Reprint author]; MANLEY N R; WALLACE D M; BERGER S L
AN 1983:245459 BIOSIS

L61 ANSWER 118 OF 192 MEDLINE on STN DUPLICATE 73
TI Inhibition of nuclear ribonuclease activity during transcription in vitro by aurintricarboxylic acid and vanadyl riboncleoside complexes.
SO Biochemical and biophysical research communications, (1982 Feb 11) Vol. 104, No. 3, pp. 903-10.
Journal code: 0372516. ISSN: 0006-291X.
AU Schulz-Harder B; Tata J R
AN 82182280 MEDLINE

L61 ANSWER 119 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 74
TI COMPARATIVE ANALYSIS OF VARIOUS ISOLATION METHODS FOR MESSENGER RNA FROM COW MAMMARY GLAND.
SO Bioorganicheskaya Khimiya, (1982) Vol. 8, No. 5, pp. 667-675.

CODEN: BIKHD7. ISSN: 0132-3423.
AU POPENDIKITE V KH [Reprint author]; SLYUSARENKO A G; SULIMOVA G E; GORODETSKII S I
AN 1983:218645 BIOSIS

L61 ANSWER 120 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 75
TI AN ASSESSMENT OF THE MASKED MESSAGE HYPOTHESIS SEA-URCHIN STRONGYLOCENTROTUS-PURPURATUS EGG MESSENGER RIBO NUCLEO PROTEIN COMPLEXES ARE EFFICIENT TEMPLATES FOR IN-VITRO PROTEIN SYNTHESIS.
SO Developmental Biology, (1982) Vol. 93, No. 2, pp. 389-403.
CODEN: DEBIAO. ISSN: 0012-1606.
AU MOON R T [Reprint author]; DANILCHIK M V; HILLE M B
AN 1983:283643 BIOSIS

L61 ANSWER 121 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Cell-free translation of messenger RNAs from human muscle biopsies: a miniaturized tool for investigation of neuromuscular diseases
SO Pediatric Research (1982), 16(5), 335-9
CODEN: PEREBL; ISSN: 0031-3998
AU Munnich, Arnold; Daegelen, Dominique; Besmond, Claude; Marie, Joelle; Dreyfus, Jean Claude; Kahn, Axel
AN 1982:435622 HCAPLUS
DN 97:35622

L61 ANSWER 122 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Preparation of functional rough microsomes from WI-38 human diploid fibroblasts, HeLa cells and rat liver
SO Methodological Surveys (1982), 11(Cancer-Cell Organelles), 263-92
CODEN: MESUD9; ISSN: 0263-7812
AU Feldman, R. A.; Gaetani, S.; Morimoto, T.
AN 1982:196128 HCAPLUS
DN 96:196128

L61 ANSWER 123 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI KITCHEN TRICKS WITH RIBO NUCLEOSIDE NUCLEOSIDE VANADYL COMPLEXES APPLICATIONS TO RECOMBINANT DNA TECHNOLOGY.
SO Federation Proceedings, (1982) Vol. 41, No. 4, pp. ABSTRACT 5452.
Meeting Info.: 66TH ANNUAL MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, NEW ORLEANS, LA., USA, APRIL 15-23, 1982. FED PROC.
CODEN: FEPRA7. ISSN: 0014-9446.
AU PUSKAS R S [Reprint author]; MANLEY N R; WALLACE D M; BERGER S L
AN 1982:130338 BIOSIS

L61 ANSWER 124 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Translation of vesicular stomatitis and Sindbis virus mRNAs in cell-free extracts of Aedes albopictus cells
SO Journal of Biological Chemistry (1981), 256(24), 13188-92
CODEN: JBCHA3; ISSN: 0021-9258
AU Gillies, Stephen; Stollar, Victor
AN 1981:616478 HCAPLUS
DN 95:216478

L61 ANSWER 125 OF 192 MEDLINE on STN DUPLICATE 76
TI The translational inhibitor 10 S cytoplasmic ribonucleoprotein of chick embryonic muscle. Dissociation and reassociation.
SO The Journal of biological chemistry, (1981 Nov 10) Vol. 256, No. 21, pp. 11301-6.
Journal code: 2985121R. ISSN: 0021-9258.
AU Mukherjee A K; Sarkar S
AN 82030949 MEDLINE

L61 ANSWER 126 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI CYTOPLASMIC LOW MOLECULAR WEIGHT RNA SPECIES OF CHICK EMBRYONIC MUSCLES A POTENT INHIBITOR OF MESSENGER RNA TRANSLATION IN-VITRO
.
SO Biochemistry, (1981) Vol. 20, No. 7, pp. 2048-2055.
CODEN: BICHAW. ISSN: 0006-2960.
AU PLUSKAL M G [Reprint author]; SARKAR S
AN 1981:245947 BIOSIS

L61 ANSWER 127 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 77
TI THE ISOLATION AND IN-VITRO TRANSLATION OF UNDEGRADED MESSENGER RNA FROM HUMAN POST MORTEM BRAIN.
SO Analytical Biochemistry, (1981) Vol. 113, No. 2, pp. 318-324.
CODEN: ANBCA2. ISSN: 0003-2697.
AU MORRISON M R [Reprint author]; GRIFFIN W S T
AN 1982:159202 BIOSIS

L61 ANSWER 128 OF 192 MEDLINE on STN DUPLICATE 78
TI [Animal and viral mRNA translation in a mRNA-dependent cell-free system and rabbit reticulocytes].
Transliatsiia mRNK zhivotnykh i virusov v zavisimoi ot mRNK beskletochnoi sisteme i retikulotsitov krolika.
SO Voprosy virusologii, (1981 Mar-Apr) No. 2, pp. 210-5.
Journal code: 0417337. ISSN: 0507-4088.
AU Kisling U; Zlobin A Iu; Khil'ko S N
AN 81277367 MEDLINE

L61 ANSWER 129 OF 192 LIFESCI COPYRIGHT 2006 CSA on STN
TI Animal and Virus mRNA Translation in mRNA-Dependent Cell -Free System of Rabbit Reticulocytes.
SO VOPR. VIRUSOL., (1981) vol. 2, pp. 210-215.
AU Kisling, U.; Zlobin, A.Yu.; Khilko, S.N.
AN 81:62219 LIFESCI

L61 ANSWER 130 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI INHIBITION OF NUCLEAR RNASE DURING TRANSCRIPTION IN-VITRO.
SO Biochemical Society Transactions, (1981) Vol. 9, No. 2, pp. 170P.
Meeting Info.: MEETING OF THE BIOCHEMICAL SOCIETY, MARCH 29-APRIL 3, 1981. BIOCHEM SOC TRANS.
CODEN: BCSTB5. ISSN: 0300-5127.
AU SCHULZ-HARDER B [Reprint author]; TATA J R
AN 1982:112906 BIOSIS

L61 ANSWER 131 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI HUMAN PLACENTAL RNASE INHIBITOR IMPROVES FIDELITY OF PLANT MESSENGER RNA IN-VITRO TRANSLATION BY WHEAT GERM EXTRACT.
SO Plant Physiology (Rockville), (1981) Vol. 67, No. 4 SUPPL, pp. 92.
Meeting Info.: ANNUAL MEETING OF THE AMERICAN SOCIETY OF PLANT PHYSIOLOGISTS AND THE CANADIAN SOCIETY OF PLANT PHYSIOLOGISTS, STE.-FOY, QUE., CANADA, JUNE 14-18, 1981. PLANT PHYSIOL (BETHESDA).
CODEN: PLPHAY. ISSN: 0032-0889.
AU THEOLOGIS A [Reprint author]; BLACKBURN P
AN 1981:112576 BIOSIS

L61 ANSWER 132 OF 192 MEDLINE on STN DUPLICATE 79
TI Synthesis, characterization and properties of ppp(A2'p)nApCp and related high-specific-activity 32P-labelled derivatives of ppp(A2'p)nA.
SO European journal of biochemistry / FEBS, (1981 Mar 16) Vol. 115, No. 1,

pp. 79-85.
Journal code: 0107600. ISSN: 0014-2956.
AU Silverman R H; Wreschner D H; Gilbert C S; Kerr I M
AN 81188793 MEDLINE

L61 ANSWER 133 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI ISOLATION OF HIGHLY ACTIVE POLYSOMES WITH POLY ADENYLATED SEQUENCES FROM BACILLUS-BREVIS.
SO FEMS Microbiology Letters, (1981) Vol. 12, No. 1, pp. 71-76.
CODEN: FMLED7. ISSN: 0378-1097.
AU KAEUFER N [Reprint author]; ALTMANN M; DOEHREN H V
AN 1982:54556 BIOSIS

L61 ANSWER 134 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Isolation and cell-free translation of human interferon mRNA from fibroblasts and leukocytes
SO Methods in Enzymology (1981), 79(Interferons, Pt. B), 51-9
CODEN: MENZAU; ISSN: 0076-6879
AU McCandliss, Russell; Sloma, Alan; Pestka, Sidney
AN 1982:102235 HCAPLUS
DN 96:102235

L61 ANSWER 135 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI THE EFFECT OF SPERMIDINE ON ENDO NUCLEASE INHIBITION BY AGAROSE CONTAMINANTS.
SO Analytical Biochemistry, (1981) Vol. 115, No. 1, pp. 42-45.
CODEN: ANBCA2. ISSN: 0003-2697.
AU BOUCHE J P [Reprint author]
AN 1982:184029 BIOSIS

L61 ANSWER 136 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI GLYCO PEPTIDES FROM BRAIN INHIBIT RATES OF POLY PEPTIDE CHAIN ELONGATION.
SO Journal of Biological Chemistry, (1980) Vol. 255, No. 13, pp. 6368-6372.
CODEN: JBCHA3. ISSN: 0021-9258.
AU KINDERS R J [Reprint author]; HUGHES J V; JOHNSON T C
AN 1981:134684 BIOSIS

L61 ANSWER 137 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI NOVEL HISTONE H-2A-LIKE PROTEIN OF ESCHERICHIA-COLI.
SO Proceedings of the National Academy of Sciences of the United States of America, (1980) Vol. 77, No. 9, pp. 5097-5101.
CODEN: PNASA6. ISSN: 0027-8424.
AU HUBSCHER U [Reprint author]; LUTZ H; KORNBERG A
AN 1981:156737 BIOSIS

L61 ANSWER 138 OF 192 MEDLINE on STN DUPLICATE 80
TI Enzymatic synthesis of deoxyribonucleic acid by the avian retrovirus reverse transcriptase in vitro: optimum conditions required for transcription of large ribonucleic acid templates.
SO Biochemistry, (1980 Feb 5) Vol. 19, No. 3, pp. 513-8.
Journal code: 0370623. ISSN: 0006-2960.
AU Retzel E F; Collett M S; Faras A J
AN 80130541 MEDLINE

L61 ANSWER 139 OF 192 MEDLINE on STN DUPLICATE 81
TI Isolation of giant silk fibroin polysomes and fibroin mRNP particles using a novel ribonuclease inhibitor, hydroxystilbamidine.
SO The Journal of cell biology, (1980 Oct) Vol. 87, No. 1, pp. 292-6.
Journal code: 0375356. ISSN: 0021-9525.
AU Lizardi P M
AN 81026444 MEDLINE

L61 ANSWER 140 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Preparation and use of bacterial soluble fraction (S-30) treated with DNase 1 for in vitro protein synthesis system
SO Nippon Saikingaku Zasshi (1980), 35(1), 261
CODEN: NSKZAM; ISSN: 0021-4930
AU Ito, Teruyo; Yokota, Ken
AN 1980:420971 HCAPLUS
DN 93:20971

L61 ANSWER 141 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Deficiency of nuclease activity in ribosomes of three tumor types
SO Cancer Letters (Shannon, Ireland) (1980), 11(2), 103-11
CODEN: CALEDQ; ISSN: 0304-3835
AU Pulkrabek, Peter; Jones, Ray E.; Goldfeder, Anna; Grunberger, Dezider
AN 1981:45311 HCAPLUS
DN 94:45311

L61 ANSWER 142 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 82
TI SHUT-OFF OF HOST PROTEIN SYNTHESIS IN VACCINIA VIRUS INFECTED CELLS EXPOSED TO CORDYCEPIN A STUDY IN-VITRO.
SO European Journal of Biochemistry, (1980) Vol. 103, No. 1, pp. 85-94.
CODEN: EJBCAI. ISSN: 0014-2956.
AU PERSON A [Reprint author]; BEAUD G
AN 1980:207496 BIOSIS

L61 ANSWER 143 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 83
TI IN-VIVO EQUIVALENCE OF A CELL-FREE SYSTEM FROM RAT LIVER FOR RIBOSOMAL RNA PROCESSING AND TRANSPORT.
SO Journal of Biological Chemistry, (1979) Vol. 254, No. 23, pp. 12126-12130.
CODEN: JBCHA3. ISSN: 0021-9258.
AU SCHUMM D E [Reprint author]; NIEMANN M A; PALAYOOR T; WEBB T E
AN 1980:189428 BIOSIS

L61 ANSWER 144 OF 192 MEDLINE on STN DUPLICATE 84
TI Role of mammalian RNase inhibitor in cell-free protein synthesis.
SO Proceedings of the National Academy of Sciences of the United States of America, (1979 Oct) Vol. 76, No. 10, pp. 4898-902.
Journal code: 7505876. ISSN: 0027-8424.
AU Scheele G; Blackburn P
AN 80056573 MEDLINE

L61 ANSWER 145 OF 192 MEDLINE on STN DUPLICATE 85
TI Cell-free protein synthesis in lysates of Drosophila melanogaster cells.
SO Biochemistry, (1979 Apr 17) Vol. 18, No. 8, pp. 1588-94.
Journal code: 0370623. ISSN: 0006-2960.
AU Scott M P; Storti R V; Pardue M L; Rich A
AN 79145444 MEDLINE

L61 ANSWER 146 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI THE ROLE OF MAMMALIAN RNASE INHIBITOR IN CELL -FREE PROTEIN SYNTHESIS.
SO Journal of Cell Biology, (1979) Vol. 83, No. 2 PART 2, pp. 428A.
Meeting Info.: 19TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR CELL BIOLOGY, TORONTO, ONT., CANADA, NOV. 4-8, 1979. J CELL BIOL.
CODEN: JCLBA3. ISSN: 0021-9525.
AU SCHEELE G [Reprint author]; FORST S; JACOBY R; BLACKBURN P
AN 1980:43432 BIOSIS

L61 ANSWER 147 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Effect of dexamethasone-phosphate and of dibutyryl cyclic AMP on protein metabolism by porcine anterior pituitary in vitro. I. Protein synthesis
SO Alexandria Journal of Agricultural Research (1979), 27(2), 275-81
CODEN: AAGRAF; ISSN: 0044-7250
AU Salem, M. H.
AN 1980:191604 HCAPLUS
DN 92:191604

L61 ANSWER 148 OF 192 MEDLINE on STN DUPLICATE 86
TI Effect of SiO2-liberated macrophage factor on protein synthesis in connective tissue in vitro.
SO Scandinavian journal of clinical and laboratory investigation, (1979 May) Vol. 39, No. 3, pp. 205-13.
Journal code: 0404375. ISSN: 0036-5513.
AU Aalto M; Turakainen H; Kulonen E
AN 80102959 MEDLINE

L61 ANSWER 149 OF 192 MEDLINE on STN DUPLICATE 87
TI Polymorphism in fowl serum albumin. VI. Changes in in vitro protein synthesizing activity in developing embryonic fowl liver.
SO Molecular and cellular biochemistry, (1979 Apr 2) Vol. 24, No. 3, pp. 167-74.
Journal code: 0364456. ISSN: 0300-8177.
AU Chu M H; Jernigan H M Jr; Iacona M A; Fried M
AN 79221310 MEDLINE

L61 ANSWER 150 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 88
TI A POSSIBLE ROLE FOR RNASE IN THE REGULATION OF PROTEIN SYNTHESIS IN RELATION TO KIDNEY GROWTH OF DIABETIC RAT.
SO Tokushima Journal of Experimental Medicine, (1979) Vol. 26, No. 1-2, pp. 5-12.
CODEN: TJXMAH. ISSN: 0040-8875.
AU TAKANO Y [Reprint author]; MINAMI H; MISAKE A; NAKA-BOU Y; HAGIHIRA H
AN 1980:152357 BIOSIS

L61 ANSWER 151 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 89
TI INHIBITION OF CELL-FREE PROTEIN SYNTHESIS BY 5-O TRI PHOSPHORYL ADENYLYL-2 5-ADENYLYL-2 5 ADENOSINE A NOVEL OLIGO NUCLEOTIDE SYNTHESIZED BY INTERFERON TREATED L CELL EXTRACTS.
SO Cell, (1978) Vol. 13, No. 3, pp. 565-572.
CODEN: CELLB5. ISSN: 0092-8674.
AU CLEMENS M J [Reprint author]; WILLIAMS B R G
AN 1978:234333 BIOSIS

L61 ANSWER 152 OF 192 MEDLINE on STN DUPLICATE 90
TI Highly efficient translation of messenger RNA in cell-free extracts prepared from L-cells.
SO Nucleic acids research, (1977 Oct) Vol. 4, No. 10, pp. 3581-7.
Journal code: 0411011. ISSN: 0305-1048.
AU Skup D; Millward S
AN 78052284 MEDLINE

L61 ANSWER 153 OF 192 MEDLINE on STN DUPLICATE 91
TI Cell-free translation of RNA synthesized in vitro by a transcribing nucleoprotein complex prepared from purified vesicular stomatitis virus.
SO Journal of virology, (1977 Mar) Vol. 21, No. 3, pp. 1002-9.
Journal code: 0113724. ISSN: 0022-538X.
AU Preston C M; Szilagyi J F
AN 77144277 MEDLINE

L61 ANSWER 154 OF 192 MEDLINE on STN DUPLICATE 92
TI Inhibition of ribonucleases by ribonucleotides and transition state analogs in cell-free extracts from Ehrlich ascites tumor cells.
SO Hoppe-Seyler's Zeitschrift fur physiologische Chemie, (1977 Apr) Vol. 358, No. 4, pp. 475-90.
Journal code: 2985060R. ISSN: 0018-4888.
AU Egberts E; Hackett P B; Traub P
AN 77186581 MEDLINE

L61 ANSWER 155 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI ISOLATION AND CHARACTERIZATION OF MESSENGER RNA FROM PARAMECIUM-AURELIA.
SO Biochimica et Biophysica Acta, (1977) Vol. 477, No. 2, pp. 89-96.
CODEN: BBACAQ. ISSN: 0006-3002.
AU HRUBY D E; MAKI R A; CUMMINGS D J
AN 1977:228471 BIOSIS

L61 ANSWER 156 OF 192 MEDLINE on STN DUPLICATE 93
TI Mechanims of stimulation of in vitro protein synthesis by some copolymers of styrene, vinyluracil, and vinyladenine with maleic acid and acrylic acid.
SO Biochemistry, (1976 Aug 10) Vol. 15, No. 16, pp. 3536-40.
Journal code: 0370623. ISSN: 0006-2960.
AU Boguslawski S; Olson P E; Mertes M P
AN 76253584 MEDLINE

L61 ANSWER 157 OF 192 MEDLINE on STN DUPLICATE 94
TI A procedure for the quantitative recovery of homogeneous populations of undegraded free and bound polysomes from rat liver.
SO Biochemistry, (1976 Apr 20) Vol. 15, No. 8, pp. 1704-12.
Journal code: 0370623. ISSN: 0006-2960.
AU Ramsey J C; Steele W J
AN 76184690 MEDLINE

L61 ANSWER 158 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 95
TI INTERFERON MEDIATED INHIBITION OF CELL-FREE PROTEIN SYNTHESIS IN RESPONSE TO DOUBLE STRANDED RNA.
SO European Journal of Biochemistry, (1976) Vol. 69, No. 2, pp. 551-562.
CODEN: EJBCAI. ISSN: 0014-2956.
AU KERR I M; BROWN R E; CLEMENS M J; GILBERT C S
AN 1977:144570 BIOSIS

L61 ANSWER 159 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Cell-free system of protein synthesis from rat cardiac muscle
SO Voprosy Meditsinskoi Khimii (1976), 22(3), 307-11
CODEN: VMDKAM; ISSN: 0042-8809
AU Yavich, M. P.; Lerman, M. I.
AN 1976:458227 HCAPLUS
DN 85:58227

L61 ANSWER 160 OF 192 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 96
TI In vitro transcription of 70S RNA by the RNA directed DNA polymerase of Rous sarcoma virus: lack of influence of RNase H.
SO Journal of Virology, (1976) Vol. 17, No. 1, pp. 291-295. .
CODEN: JOVIAM
AU Collett M.S.; Faras A.J.
AN 76206205 EMBASE

L61 ANSWER 161 OF 192 MEDLINE on STN DUPLICATE 97

TI Template properties of bacteriophage T4 vegetative DNA. I. Isolation and characterization of two template fractions from gently lysed T4-infected bacteria.
SO The Journal of biological chemistry, (1975 Dec 10) Vol. 250, No. 23, pp. 8963-72.
Journal code: 2985121R. ISSN: 0021-9258.
AU Cox G S; Conway T W
AN 76069222 MEDLINE

L61 ANSWER 162 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Rat pituitary tumor cells in culture: a model system for studies on the control of protein synthesis in differentiated cells
SO Regul. Growth Differ. Funct. Eukaryote Cells, [Satell. Symp.] (1975), Meeting Date 1974, 329-33. Editor(s): Talwar, G. P. Publisher: Raven, New York, N. Y.
CODEN: 32GFAY
AU Biswas, Debajit K.; Martin, Thomas F. J.
AN 1976:100957 HCAPLUS
DN 84:100957

L61 ANSWER 163 OF 192 MEDLINE on STN
TI In vitro transcription of 70S RNA by the RNA-directed DNA polymerase of Rouse sarcoma virus: lack of influence of RNase H.
SO Journal of virology, (1975 Jan) Vol. 17, No. 1, pp. 291-5.
Journal code: 0113724. ISSN: 0022-538X.
AU Collett M S; Faras A J
AN 76098021 MEDLINE

L61 ANSWER 164 OF 192 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
TI Artifacts in studies of protein synthesis with radioactive amino acids. Invalidity of alleged stimulation of protein synthesis by thyroxine in vitro in absence of mitochondria.
SO Journal of Biological Chemistry, (1974) Vol. 249, No. 17, pp. 5520-5526. .
CODEN: JBCHA3
AU Sokoloff L.; Roberts P.A.
AN 75099010 EMBASE

L61 ANSWER 165 OF 192 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
TI In vitro transcription of kinetoplast and nuclear DNA in kinetoplastida.
SO Journal of Protozoology, (1974) Vol. 21, No. 5, pp. 632-638. .
CODEN: JPROAR
AU Hill G.C.; Bonilla C.A.
AN 75185374 EMBASE

L61 ANSWER 166 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Protein synthesis in vitro with ribosomal fractions from cell suspension cultures of Petroselinum hortense
SO Biochimica et Biophysica Acta, Nucleic Acids and Protein Synthesis (1974), 366(4), 454-65
CODEN: BBNPAS; ISSN: 0005-2787
AU Schroeder, Joachim; Hahlbrock, Klaus
AN 1975:1199 HCAPLUS
DN 82:1199

L61 ANSWER 167 OF 192 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 98
TI Protein synthesis by rat cardiac muscle myofibrils.
SO Biochimica et Biophysica Acta, (1973) Vol. 312, No. 2, pp. 413-425. .
CODEN: BBACAQ
AU Narayanan N.; Eapen J.
AN 74032402 EMBASE

L61 ANSWER 168 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Role of soluble protein factors in the translational control of protein synthesis in eukaryotic cells
SO FEBS Letters (1973), 32(2), 205-12
CODEN: FEBLAL; ISSN: 0014-5793
AU Pain, Virginia M.; Clemens, Michael J.
AN 1973:512410 HCAPLUS
DN 79:112410

L61 ANSWER 169 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Effect of deoxyribonucleases I and II on rat liver chromatin transcription in vitro
SO European Journal of Biochemistry (1973), 40(1), 119-31
CODEN: EJBCAI; ISSN: 0014-2956
AU Pays, Etienne; Ronsse, Annie
AN 1974:79260 HCAPLUS
DN 80:79260

L61 ANSWER 170 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Adenovirus proteins. III. Cell-free synthesis of adenovirus proteins in cytoplasmic extracts of KB cells
SO Virology (1971), 46(1), 98-105
CODEN: VIRLAX; ISSN: 0042-6822
AU Caffier, Hans; Green, Maurice
AN 1972:11194 HCAPLUS
DN 76:11194

L61 ANSWER 171 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Protein synthesis by chloroplasts in vitro using light as a source of energy
SO Revista Espanola de Fisiologia (1970), 26(1), 83-8
CODEN: REFIAS; ISSN: 0034-9402
AU Griffiths, David E.; Lozano, Jose A.
AN 1970:421296 HCAPLUS
DN 73:21296

L61 ANSWER 172 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI MEDIATION OF RNA STIMULATION OF THE CELL FREE SYSTEM BY ENZ RNASE INHIBITION ABSTRACT PROTEIN SYNTHESIS RETICULOCYTE GLOBIN SYNTHESIS.
SO Federation Proceedings, (1969) Vol. 28, No. 2, pp. 841.
CODEN: FEPRA7. ISSN: 0014-9446.
AU BURKA E R
AN 1969:47086 BIOSIS

L61 ANSWER 173 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Inhibitory effects of pH5 enzyme from nonlactating bovine mammary gland on various stages of protein synthesis in the rat liver amino acid-incorporating system
SO Biochemical Journal (1969), 115(4), 671-8
CODEN: BIJOAK; ISSN: 0264-6021
AU Herrington, M. D.; Hawtrey, A. O.
AN 1970:50882 HCAPLUS
DN 72:50882

L61 ANSWER 174 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Polysomes of sea urchins: retention of integrity
SO Cell Cycle (1969), 299-313. Editor(s): Padilla, G. M. Publisher: Acad. Press, New York, N. Y.
CODEN: 21VSAS
AU Iverson, Ray M.; Cohen, Geraldine H.
AN 1970:19474 HCAPLUS
DN 72:19474

L61 ANSWER 175 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Synthesis of milk proteins in a cell-free system isolated from lactating bovine mammary tissue
SO Archives of Biochemistry and Biophysics (1969), 132(1), 210-22
CODEN: ABBIA4; ISSN: 0003-9861
AU Beitz, Donald C.; Mohrenweiser, H. W.; Thomas, John William; Wood, W. A.
AN 1969:418814 HCAPLUS
DN 71:18814

L61 ANSWER 176 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Characteristics of in vitro protein synthesis systems from Rhizoctonia solani and Sclerotium bataticola
SO Phytopathology (1969), 59(2), 187-92
CODEN: PHYTAJ; ISSN: 0031-949X
AU Obrig, T. G.; Cerna, Jana; Gottlieb, David
AN 1969:74380 HCAPLUS
DN 70:74380

L61 ANSWER 177 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Human platelets. I. Synthesis of platelet protein in a cell-free system
SO Biochimica et Biophysica Acta, Nucleic Acids and Protein Synthesis (1968), 166(3), 689-97
CODEN: BBNPAS; ISSN: 0005-2787
AU Booyse, Francois M.; Rafelson, Max E., Jr.
AN 1969:8757 HCAPLUS
DN 70:8757

L61 ANSWER 178 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI in vitro protein synthesis by plastids of phasEolus vulgaris. ii. the probable relation between ribonuclease insens .ang..ang. .ang.
SO Plant Physiology (1968), 43(4), 495-503
CODEN: PLPHAY; ISSN: 0032-0889
AU Margulies. Maurice M.; Gantt, Elisabeth; Parenti, Francesco
AN 1968:408920 HCAPLUS
DN 69:8920

L61 ANSWER 179 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI In vitro synthesis of bacteriophage lysozyme
SO Nature (London, United Kingdom) (1967), 215(5101), 588-91
CODEN: NATUAS; ISSN: 0028-0836
AU Salser, Winston; Gesteland, Raymond F.; Bolle, A.
AN 1967:479788 HCAPLUS
DN 67:79788

L61 ANSWER 180 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Quantitative evaluation of the capacity of protein synthesis in cell-free extracts of Chlorella
SO Zeitschrift fuer Pflanzenphysiologie (1967), 57(4), 329-38
CODEN: ZSPPAD; ISSN: 0044-328X
AU Erben, Kurt
AN 1968:18712 HCAPLUS
DN 68:18712

L61 ANSWER 181 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Polyribosomes and protein synthesis in the spleen
SO Journal of Biological Chemistry (1966), 241(9), 2067-74
CODEN: JBCHA3; ISSN: 0021-9258
AU Talal, Norman
AN 1966:105986 HCAPLUS
DN 64:105986
OREF 64:20038f-g

L61 ANSWER 182 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN

TI Protein synthesis by cell-free extracts from castor bean seedlings. I. Preparation and characteristics of the amino acid-incorporating system
SO Biochemistry (1966), 5(5), 1638-45
CODEN: BICHAW; ISSN: 0006-2960
AU Parisi, B.; Ciferri, O.
AN 1966:105965 HCAPLUS
DN 64:105965
OREF 64:20034e-g

L61 ANSWER 183 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI In vitro synthesis of brain protein. II. Properties of the complete system
SO Biochemistry (1966), 5(3), 930-6
CODEN: BICHAW; ISSN: 0006-2960
AU Stenzel, Kurt H.; Aronson, Ruth F.; Rubin, Albert L.
AN 1966:76883 HCAPLUS
DN 64:76883
OREF 64:14451a-c

L61 ANSWER 184 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Protein synthesis in tomato cotyledons and leaves. II. Intermediate stages of protein synthesis
SO Plant and Cell Physiology (1966), 7, 343-56
CODEN: PCPHA5; ISSN: 0032-0781
AU Hall, Timothy Couzens; Cocking, Edward C.
AN 1967:26639 HCAPLUS
DN 66:26639

L61 ANSWER 185 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Biosynthesis of proteins. VII. The activity of various types of DNA and a RNase-inhibitor from rabbit erythrocytes in a cell-free protein synthesis system from Escherichia coli. DNA dependent on in vitro synthesis of early proteins of the E. coli phage T4
SO Hoppe-Seyler's Zeitschrift fuer Physiologische Chemie (1966), 343(4-6), 261-75
CODEN: HSZPAZ; ISSN: 0018-4888
AU Traub, Peter; Zillig, Wolfram; Millette, Robert L.; Schweiger, Manfred
AN 1966:106063 HCAPLUS
DN 64:106063
OREF 64:20055a-c

L61 ANSWER 186 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Incorporation of amino acids into protein in a cell-free system from Bacillus cereus
SO Biochimica et Biophysica Acta, Nucleic Acids and Protein Synthesis (1966), 119(1), 160-70
CODEN: BBNPAS; ISSN: 0005-2787
AU Kobayashi, Y.; Halvorson, H. O.
AN 1966:105973 HCAPLUS
DN 64:105973
OREF 64:20036d-e

L61 ANSWER 187 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Protein synthesis studies with a cell-free plastid preparation from tomato fruit locule tissue
SO Biochemical Journal (1966), 101(3), 28P
CODEN: BIJOAK; ISSN: 0264-6021
AU Davies, Jeffrey William; Cocking, Edward C.
AN 1967:43702 HCAPLUS
DN 66:43702

L61 ANSWER 188 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI On the relation between a post-microsomal fraction and poly-nucleotide-directed amino acid incorporation by rat liver ribosomes

SO Biochimica et Biophysica Acta, Nucleic Acids and Protein Synthesis (1965), 108(3), 419-33
CODEN: BBNPAS; ISSN: 0005-2787
AU Mizrahi, I. J.
AN 1966:20807 HCAPLUS
DN 64:20807
OREF 64:3884g-h,3885a-b

L61 ANSWER 189 OF 192 MEDLINE on STN
TI [Studies on the biosynthesis of proteins. VII. Activity of various desoxyribonucleic acids and ribonuclease inhibitors from rabbit reticulocytes in a cell-free protein synthesis system in Escherichia coli. DNA-dependent in vitro synthesis of "early proteins" of E. coliphages T4]. Untersuchungen zur Biosynthese der Proteine. VII. Aktivitat verschiedener Desoxyribonucleinsauren und eines Ribonucleaseinhibitors aus Kaninchenreticulocyten in einem zellfreien Proteinsynthese-System aus Escherichia coli. DNA-abhangige in vitro-Synthese "fruher Proteine" des E.-coli-Phagen T4.
SO Hoppe-Seyler's Zeitschrift fur physiologische Chemie, (1965) Vol. 343, No. 4, pp. 261-75.
Journal code: 2985060R. ISSN: 0018-4888.
AU Traub P; Zillig W; Millette R L; Schweiger M
AN 66153284 MEDLINE

L61 ANSWER 190 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Relation between cell-free synthesis of ornithine transcarbamylase and protein synthesis
SO Archives of Biochemistry and Biophysics (1965), 111(1), 39-53
CODEN: ABBIA4; ISSN: 0003-9861
AU Rogers, Palmer
AN 1965:425189 HCAPLUS
DN 63:25189
OREF 63:4537e-g

L61 ANSWER 191 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Protein synthesis in [the human] brain microsomal system [in vitro]
SO Journal of Neurochemistry (1964), 11(6), 403-12
CODEN: JONRA9; ISSN: 0022-3042
AU Suzuki, Kunihiko; Korey, Saul R.; Terry, Robert D.
AN 1965:83631 HCAPLUS
DN 62:83631
OREF 62:14954f-h,14955a

L61 ANSWER 192 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
TI The dependence of cell free protein synthesis upon naturally occurring or synthetic template RNA [ribonucleic acid]
SO Bulletin of the New York Academy of Medicine (1962), 38(2), 145
CODEN: BNYMAM; ISSN: 0028-7091
AU Nirenberg, Marshall W.; Matthaei, J. Heinrich
AN 1964:448966 HCAPLUS
DN 61:48966
OREF 61:8549c-e

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ANSWER SET L61 HAS BEEN SAVED AS 'ITT/A'

=> s recbc? or exov or (exo or exonuclease)(w)v
FILE 'MEDLINE'
605 RECBC?
19 EXOV
4333 EXO
4163 EXONUCLEASE

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        442463 V
            93 (EXO OR EXONUCLEASE)(W)V
L62         668 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'SCISEARCH'
            577 RECBC?
             11 EXOV
          10272 EXO
           3854 EXONUCLEASE
        1028711 V
             92 (EXO OR EXONUCLEASE)(W)V
L63         612 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'LIFESCI'
            424 RECBC?
             12 EXOV
           2729 EXO
           2511 EXONUCLEASE
          79856 V
             46 (EXO OR EXONUCLEASE)(W)V
L64         449 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'BIOTECHDS'
             59 RECBC?
              3 EXOV
           1314 EXO
           1222 EXONUCLEASE
          26520 V
             19 (EXO OR EXONUCLEASE)(W)V
L65          76 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'BIOSIS'
            661 RECBC?
             21 EXOV
           8304 EXO
           4507 EXONUCLEASE
         336165 V
            100 (EXO OR EXONUCLEASE)(W)V
L66         734 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'EMBASE'
            470 RECBC?
             17 EXOV
           4552 EXO
           3680 EXONUCLEASE
         416466 V
             76 (EXO OR EXONUCLEASE)(W)V
L67         518 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'HCAPLUS'
            749 RECBC?
             26 EXOV
          28381 EXO
           6910 EXONUCLEASE
        1084227 V
            218 (EXO OR EXONUCLEASE)(W)V
L68         901 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'NTIS'
              7 RECBC?
              0 EXOV
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          39321 V
              2 (EXO OR EXONUCLEASE)(W)V
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L69           9 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'ESBIOBASE'
            248 RECBC?
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           1844 EXO
           1776 EXONUCLEASE
         261893 V
             14 (EXO OR EXONUCLEASE)(W)V
L70          256 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'BIOTECHNO'
            354 RECBC?
             17 EXOV
           1171 EXO
           2485 EXONUCLEASE
          99304 V
             39 (EXO OR EXONUCLEASE)(W)V
L71          373 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

FILE 'WPIDS'
             14 RECBC?
              0 EXOV
           1910 EXO
            928 EXONUCLEASE
         274587 V
             12 (EXO OR EXONUCLEASE)(W)V
L72          26 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W)V

TOTAL FOR ALL FILES
L73        4622 RECBC? OR EXOV OR (EXO OR EXONUCLEASE)(W) V

=> s l24 and l73
FILE 'MEDLINE'
L74           4 L13 AND L62

FILE 'SCISEARCH'
L75           3 L14 AND L63

FILE 'LIFESCI'
L76           4 L15 AND L64

FILE 'BIOTECHDS'
L77           3 L16 AND L65

FILE 'BIOSIS'
L78           3 L17 AND L66

FILE 'EMBASE'
L79           3 L18 AND L67

FILE 'HCAPLUS'
L80           6 L19 AND L68

FILE 'NTIS'
L81           0 L20 AND L69

FILE 'ESBIOBASE'
L82           3 L21 AND L70

FILE 'BIOTECHNO'
L83           1 L22 AND L71

FILE 'WPIDS'
L84           1 L23 AND L72
```

TOTAL FOR ALL FILES
L85 31 L24 AND L73

=> dup rem l85
PROCESSING COMPLETED FOR L85
L86 7 DUP REM L85 (24 DUPLICATES REMOVED)

=> d tot

L86 ANSWER 1 OF 7 MEDLINE on STN DUPLICATE 1
TI Increasing PCR fragment stability and protein yields in a cell-free system with genetically modified Escherichia coli extracts.
SO Journal of molecular microbiology and biotechnology, (2005) Vol. 9, No. 1, pp. 26-34.
Journal code: 100892561. ISSN: 1464-1801.
AU Michel-Reydellet Nathalie; Woodrow Kim; Swartz James
AN 2005576477 MEDLINE

L86 ANSWER 2 OF 7 MEDLINE on STN DUPLICATE 2
TI A novel cell-free protein synthesis system.
SO Journal of biotechnology, (2004 Jun 10) Vol. 110, No. 3, pp. 257-63.
Journal code: 8411927. ISSN: 0168-1656.
AU Sitaraman Kalavathy; Esposito Dominic; Klarmann George; Le Grice Stuart F; Hartley James L; Chatterjee Deb K
AN 2004265272 MEDLINE

L86 ANSWER 3 OF 7 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI New in vitro protein or nucleic acid synthesis system comprising at least one extract from a cell, or inhibitor, and/or at least two energy sources providing chemical energy for synthesis, useful for producing proteins or nucleic acids;
method for DNA synthesis or RNA synthesis
AU CHATTERJEE D K; LONGO M C
AN 2003-03912 BIOTECHDS
PI WO 2002072890 19 Sep 2002

L86 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Improvement of cell-free protein synthesis by modification of E. coli's genotype.
SO Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March 26-30, 2000 (2000), BIOT-089 Publisher: American Chemical Society, Washington, D. C.
CODEN: 69CLAC
AU Michel-Reydellet, Nathalie; Kim, Dong-Myung; Swartz, James R.
AN 2000:327311 HCAPLUS

L86 ANSWER 5 OF 7 MEDLINE on STN DUPLICATE 4
TI Reconstitution of an SOS response pathway: derepression of transcription in response to DNA breaks.
SO Cell, (1998 Dec 23) Vol. 95, No. 7, pp. 975-9.
Journal code: 0413066. ISSN: 0092-8674.
AU Anderson D G; Kowalczykowski S C
AN 1999091055 MEDLINE

L86 ANSWER 6 OF 7 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI Novel plasmid and DNA;
plasmid pIEPR12 vector containing a human cytomegalo virus immediate-early promoter regulatory region, for cloning in mammal cell culture or Escherichia coli
AN 1993-01917 BIOTECHDS
PI US 5168062 1 Dec 1992

L86 ANSWER 7 OF 7 MEDLINE on STN DUPLICATE 5

TI Enhanced polypeptide synthesis programmed by linear DNA fragments in cell-free extracts lacking exonuclease V.
SO FEBS letters, (1983 Nov 14) Vol. 163, No. 2, pp. 221-4.
Journal code: 0155157. ISSN: 0014-5793.
AU Jackson M; Pratt J M; Holland I B
AN 84058336 MEDLINE

=> d ab 3-7

L86 ANSWER 3 OF 7 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
AB DERWENT ABSTRACT:
NOVELTY - A new in vitro protein or nucleic acid synthesis system.
DETAILED DESCRIPTION - A new in vitro protein or nucleic acid synthesis system comprises one or more components selected from at least one extract from a cell having reduced activity of at least one enzyme that catalyzes hydrolysis of high energy phosphate bonds or hydrolysis or formation of phosphodiester bonds, at least one inhibitor of at least one enzyme that catalyzes hydrolysis of high energy phosphate bonds or hydrolysis or formation of phosphodiester bonds, and at least two energy sources providing chemical energy for synthesis. INDEPENDENT CLAIMS are also included for the following: (1) a composition comprising the one or more components cited above; (2) a kit for in vitro synthesis comprising the one or more components cited above; (3) a method for producing protein or nucleic acid from a nucleic acid template in an in vitro system; (4) a method for constructing an in vitro synthesis system; and (5) a composition comprising the one or more components cited above and at least one nucleic acid template in the presence of at least a partial synthesis product of the template.
BIOTECHNOLOGY - Preferred System: In the in vitro protein or nucleic acid synthesis system, at least one extract from a cell has reduced activity of at least one nuclease, phosphatase, or polymerase, and at least one inhibitor inhibits at least one nuclease, phosphatase or polymerase. The template is a DNA template. The nuclease is a DNase or RNase, preferably, exonuclease or endonuclease. The DNA endonuclease is endonuclease A. The RNA endonuclease is RNase E. The system further comprises at least one nucleic acid template, which is an RNA or DNA template. The system comprises at least one DNA template and an in vitro transcription/translation system. The phosphatase is an alkaline phosphatase. The energy sources generate or regenerate high-energy triphosphate compounds. The system comprises at least one or more compounds, as at least two different chemical fuel sources, selected from pyruvate, phosphoenolpyruvate (PEP), carbamoyl phosphate, acetyl phosphate, creatine phosphate, phosphopyruvate, glyceraldehydes-3-phosphate and glucose-6-phosphate. At least one extract from the cell is reduced in activity of at least one enzyme selected from OmpT, RNase E, alkaline phosphatase and endonuclease I. The system comprises further reduction in at least one activity of RNase I or RNase Iasterisk. The enzyme can be RecBCD and the inhibitor can be at least Gam, preferably a soluble Gam. The system further comprises one or more nucleic acid templates or components such as an inhibitor of an enzyme that degrades the template, or at least one extract of a cell having reduced degradative effect on the template. The system comprises at least one energy source having at least two different energy sources, each of which generates or regenerates the high-energy triphosphate compounds for the synthesis. The two different chemical fuel sources comprise at least PEP and acetyl phosphate. The system can comprise at least one extract, nucleic acid template and energy source; at least one nucleic acid template and at least two energy sources; at least one extract; or at least one inhibitor. Preferred Kit: The kit further comprises one or more of the components selected from: (a) at least one inhibitor of RecBCD; (b) at least one cell, or its extract mutated at least one gene such as nuclease, polymerase or phosphatase; (c) an inhibitor of at least one enzyme such as nuclease, polymerase or phosphatase; (d) at least one energy source for synthesis; and (e) a

medium for growing of the at least one cell. Preferred Method: Producing protein or nucleic acid from the nucleic acid template in an in vitro system comprises: (a) contacting the template with at least one of the components cited above to form a mixture; and (b) incubating the mixture under conditions to produce at least one protein encoded by the template. Constructing an in vitro synthesis system comprises: (a) obtaining at least one cell extract; and (b) mixing the cell extract with the one or more components cited above. Preferred Composition: The product in the composition in (5) is a nucleic acid, preferably DNA or RNA.

USE - The system is useful for in vitro protein or nucleic acid synthesis (claimed). The extract from cell is useful for inhibiting or inactivating unwanted components/proteins/enzymes in the synthesis reaction. The inhibitors are useful for enhancing the production of the desired products in vitro. The kits are useful for facilitating the in vitro synthesis.

ADVANTAGE - The system provides a more efficient protein and nucleic acid synthesis by providing an improved energy supply for synthesis and by maintaining the nucleic acid templates for an extended synthesis reaction.

EXAMPLE - No relevant example given. (63 pages)

L86 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

AB coli cell-free protein synthesis systems have great potential but are limited by undesirable metabolic reactions. To improve these systems, we must first understand the limitations and then remove them. Knowledge of E. coli metabolism and genomic sequence as well as numerous genetic tools allows such anal. and optimization. Several targets have been identified. In phosphoenol pyruvate driven reactions, amino acid anal. showed that arginine, tryptophan and cysteine were being depleted. Preliminary expts. suggested that arginine decarboxylase (speA gene) and tryptophanase (tnaA gene) were responsible. One of our goals is to express proteins from PCR products. However, we observed that in cell exts. of the E. coli strain A19, linear DNA is unstable due to the activity of nucleases. Chief candidates are exonuclease V (recD gene) and endonuclease A (endA gene). These genes are targets for marker-free gene inactivation. The procedure for mutagenesis will be presented, as well as the impact on cell-free protein synthesis.

L86 ANSWER 5 OF 7 MEDLINE on STN DUPLICATE 4

AB E. coli responds to DNA damage by derepressing the transcription of about 20 genes that make up the SOS pathway. Genetic analyses have shown that SOS induction in response to double-stranded DNA (dsDNA) breaks requires LexA repressor, and the RecA and RecBCD enzymes--proteins best known for their role as initiators of dsDNA break repair and homologous recombination. Here we demonstrate that purified RecA protein, RecBCD enzyme, single-stranded DNA-binding (SSB) protein, and LexA repressor respond to dsDNA breaks in vitro by derepressing transcription from an SOS promoter. Interestingly, derepression is more rapid if the DNA containing the dsDNA break has a chi recombination hot spot (5'-GCTGGTGG-3'), suggesting a novel regulatory role for one of the most overrepresented octamers in the E. coli genome.

L86 ANSWER 6 OF 7 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN

AB A new plasmid vector contains a specified DNA sequence from the immediate-early promoter regulatory region of human cytomegalo virus (HCMV), and a heterologous gene downstream, operatively linked. The sequence contains repeat sequences 19, 28, 16 and 21 bp in length. The plasmid is used to transform a eukaryote host, e.g. a mammal cell culture, or a microorganism, e.g. Escherichia coli RecBC-. The vector is preferably plasmid pIEPR12. The presence of HCMV repeat sequences facilitates transcription both in vitro and in vivo. In an example, in vitro transcription was tested with a HeLa cell lysate, and in vivo transcription was tested by transfection of human cells (by the calcium phosphate precipitate

method), extraction of cytoplasmic RNA and determination of the amount of specific RNA. Activation of an adjacent gene was at the transcriptional level, and transcription of the adjacent gene was increased by the presence of the viral sequences. (10pp)

L86 ANSWER 7 OF 7 MEDLINE on STN DUPLICATE 5
AB Preparation of an in vitro coupled transcription-translation system from E. coli strains lacking exonuclease V has greatly improved the system for use with added linear DNA fragments. In fact, in extracts of these mutants linear fragments are stable for several hours. However the cell extracts show a high level of endogenous background. To avoid this complication extracts were prepared at 30 degrees C from a mutant carrying a temperature-sensitive exonuclease V. Polypeptides coded by a specific DNA region, e.g., delineated by restriction endonuclease sites, can now be easily identified.

```
=> s linear dna
FILE 'MEDLINE'
        174847 LINEAR
        872961 DNA
L87       1414 LINEAR DNA
                 (LINEAR(W)DNA)

FILE 'SCISEARCH'
        490252 LINEAR
        620957 DNA
L88       1123 LINEAR DNA
                 (LINEAR(W)DNA)

FILE 'LIFESCI'
         37376 "LINEAR"
        283346 "DNA"
L89        939 LINEAR DNA
                 ("LINEAR"(W)"DNA")

FILE 'BIOTECHDS'
          7649 LINEAR
        149142 DNA
L90        468 LINEAR DNA
                 (LINEAR(W)DNA)

FILE 'BIOSIS'
        185492 LINEAR
       1154202 DNA
L91       1611 LINEAR DNA
                 (LINEAR(W)DNA)

FILE 'EMBASE'
        153306 "LINEAR"
        661124 "DNA"
L92       1165 LINEAR DNA
                 ("LINEAR"(W)"DNA")

FILE 'HCAPLUS'
        585301 LINEAR
        794147 DNA
L93       2114 LINEAR DNA
                 (LINEAR(W)DNA)

FILE 'NTIS'
         73879 LINEAR
          9431 DNA
L94          8 LINEAR DNA
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                (LINEAR(W)DNA)

FILE 'ESBIOBASE'
         66041 LINEAR
        295556 DNA
L95        595 LINEAR DNA
                (LINEAR(W)DNA)

FILE 'BIOTECHNO'
         25959 LINEAR
        388151 DNA
L96        800 LINEAR DNA
                (LINEAR(W)DNA)

FILE 'WPIDS'
        237282 LINEAR
         72504 DNA
L97        206 LINEAR DNA
                (LINEAR(W)DNA)

TOTAL FOR ALL FILES
L98      10443 LINEAR DNA

=> s l24 and l98
FILE 'MEDLINE'
L99           40 L13 AND L87

FILE 'SCISEARCH'
L100          22 L14 AND L88

FILE 'LIFESCI'
L101          31 L15 AND L89

FILE 'BIOTECHDS'
L102          15 L16 AND L90

FILE 'BIOSIS'
L103          46 L17 AND L91

FILE 'EMBASE'
L104          32 L18 AND L92

FILE 'HCAPLUS'
L105          66 L19 AND L93

FILE 'NTIS'
L106           0 L20 AND L94

FILE 'ESBIOBASE'
L107          12 L21 AND L95

FILE 'BIOTECHNO'
L108          25 L22 AND L96

FILE 'WPIDS'
L109           8 L23 AND L97

TOTAL FOR ALL FILES
L110         297 L24 AND L98

=> s l110 not 2002-2006/py
FILE 'MEDLINE'
       2844973 2002-2006/PY
                (20020000-20069999/PY)
L111          34 L99 NOT 2002-2006/PY
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FILE 'SCISEARCH'
       5243521 2002-2006/PY
                 (20020000-20069999/PY)
L112        15 L100 NOT 2002-2006/PY

FILE 'LIFESCI'
        500908 2002-2006/PY
L113        27 L101 NOT 2002-2006/PY

FILE 'BIOTECHDS'
        122693 2002-2006/PY
L114         8 L102 NOT 2002-2006/PY

FILE 'BIOSIS'
       2511100 2002-2006/PY
L115        37 L103 NOT 2002-2006/PY

FILE 'EMBASE'
       2473613 2002-2006/PY
L116        28 L104 NOT 2002-2006/PY

FILE 'HCAPLUS'
       5401054 2002-2006/PY
L117        52 L105 NOT 2002-2006/PY

FILE 'NTIS'
         71750 2002-2006/PY
L118         0 L106 NOT 2002-2006/PY

FILE 'ESBIOBASE'
       1474871 2002-2006/PY
L119         7 L107 NOT 2002-2006/PY

FILE 'BIOTECHNO'
        244553 2002-2006/PY
L120        24 L108 NOT 2002-2006/PY

FILE 'WPIDS'
       4666175 2002-2006/PY
L121         1 L109 NOT 2002-2006/PY

TOTAL FOR ALL FILES
L122       233 L110 NOT 2002-2006/PY

=> dup rem l122
PROCESSING COMPLETED FOR L122
L123         63 DUP REM L122 (170 DUPLICATES REMOVED)

=> d tot

L123 ANSWER 1 OF 63  HCAPLUS  COPYRIGHT 2006 ACS on STN
TI   Cell-free protein synthesis system
     suitable for using PCR-amplified DNA templates: addition of excess
     linear DNA
SO   Jpn. Kokai Tokkyo Koho, 5 pp.
     CODEN: JKXXAF
IN   Sekiguchi, Akira; Arahata, Tomoya; Nunofuji, Satoshi; Nakano, Hideo;
     Yamane, Tsuneo
AN   2001:365878  HCAPLUS
DN   134:363672
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     --------------      ----   --------    --------------------    --------
PI   JP 2001136971        A2    20010522    JP 1999-323141          19991112
```

L123 ANSWER 2 OF 63 MEDLINE on STN DUPLICATE 1
TI A novel mechanism controls anaerobic and catabolite regulation of the Escherichia coli tdc operon.
SO Molecular microbiology, (2001 Mar) Vol. 39, No. 5, pp. 1285-98.
Journal code: 8712028. ISSN: 0950-382X.
AU Sawers G
AN 2001526297 MEDLINE

L123 ANSWER 3 OF 63 MEDLINE on STN DUPLICATE 2
TI In-vitro competition analysis of procyclin gene and variant surface glycoprotein gene expression site transcription in Trypanosoma brucei.
SO Molecular and biochemical parasitology, (2001 Mar) Vol. 113, No. 1, pp. 55-65.
Journal code: 8006324. ISSN: 0166-6851.
AU Laufer G; Gunzl A
AN 2001324191 MEDLINE

L123 ANSWER 4 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Transcription in vitro using bacteriophage RNA polymerases
SO Nucleic Acid Protocols Handbook (2000), 875-883. Editor(s): Rapley, Ralph. Publisher: Humana Press Inc., Totowa, N. J.
CODEN: 68WSAO
AU Schenborn, Elaine T.
AN 2000:299241 HCAPLUS
DN 134:66873

L123 ANSWER 5 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Improvement of cell-free protein synthesis by modification of E. coli's genotype.
SO Book of Abstracts, 219th ACS National Meeting, San Francisco, CA, March 26-30, 2000 (2000), BIOT-089 Publisher: American Chemical Society, Washington, D. C.
CODEN: 69CLAC
AU Michel-Reydellet, Nathalie; Kim, Dong-Myung; Swartz, James R.
AN 2000:327311 HCAPLUS

L123 ANSWER 6 OF 63 MEDLINE on STN DUPLICATE 3
TI Characterization of the Moraxella catarrhalis uspA1 and uspA2 genes and their encoded products.
SO Journal of bacteriology, (1999 Jul) Vol. 181, No. 13, pp. 4026-34.
Journal code: 2985120R. ISSN: 0021-9193.
AU Cope L D; Lafontaine E R; Slaughter C A; Hasemann C A Jr; Aebi C; Henderson F W; McCracken G H Jr; Hansen E J
AN 1999315796 MEDLINE

L123 ANSWER 7 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Transcription in vitro using bacteriophage RNA polymerases
SO Methods in Molecular Biology (Totowa, New Jersey) (1998), 86(RNA Isolation and Characterization Protocols), 209-219
CODEN: MMBIED; ISSN: 1064-3745
AU Schenborn, Elaine T.
AN 1998:376273 HCAPLUS
DN 129:145397

L123 ANSWER 8 OF 63 MEDLINE on STN DUPLICATE 4
TI Elongation properties of vaccinia virus RNA polymerase: pausing, slippage, 3' end addition, and termination site choice.
SO Biochemistry, (1997 Dec 16) Vol. 36, No. 50, pp. 15892-9.
Journal code: 0370623. ISSN: 0006-2960.
AU Deng L; Shuman S
AN 1998062306 MEDLINE

L123 ANSWER 9 OF 63 MEDLINE on STN DUPLICATE 5

TI DNA interactions of bifunctional dinuclear platinum(II) antitumor agents.
SO European journal of biochemistry / FEBS, (1997 Jun 1) Vol. 246, No. 2, pp. 508-17.
Journal code: 0107600. ISSN: 0014-2956.
AU Zaludova R; Zakovska A; Kasparkova J; Balcarova Z; Kleinwachter V; Vrana O; Farrell N; Brabec V
AN 97352550 MEDLINE

L123 ANSWER 10 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI Direct expression of PCR products in a cell-free transcription/translation system: synthesis of antibacterial peptide cecropin;
polymerase chain reaction direct in vitro transcription-translation system
SO FEBS Lett.; (1997) 414, 2, 268-70
CODEN: FEBLAL ISSN: 0014-5793
AU Martemyanov K A; Spirin A S; *Gudkov A T
AN 1997-11601 BIOTECHDS

L123 ANSWER 11 OF 63 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 6
TI In vitro expression of PCR fragments: A convenient tool for generating purified recombinant proteins in analytical amounts
SO Methods Mol. Cell. Biol., (19970000) vol. 6, no. 2, pp. 94-103.
ISSN: 0898-7750.
AU Nechansky, A.; Ruf, C.; Kricek, F.
AN 1998:62355 LIFESCI

L123 ANSWER 12 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Direct analysis of in vitro transcription products from super-coiled templates containing ribozymes
SO BioTechniques (1996), 20(5), 750, 752, 754
CODEN: BTNQDO; ISSN: 0736-6205
AU Batt, David B.
AN 1996:274055 HCAPLUS
DN 124:334035

L123 ANSWER 13 OF 63 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 7
TI In vitro expression of PCR fragments: A convenient tool for generating purified recombinant proteins in analytical amounts
SO METHODS IN MOLECULAR AND CELLULAR BIOLOGY, (1995) Vol. 6, No. 2, pp. 94-103.
ISSN: 0898-7750.
AU Nechansky A (Reprint); Ruf C; Kricek F
AN 1995:853495 SCISEARCH

L123 ANSWER 14 OF 63 MEDLINE on STN DUPLICATE 8
TI Regulation of the Escherichia coli nrd operon: role of DNA supercoiling.
SO Journal of bacteriology, (1994 Aug) Vol. 176, No. 15, pp. 4617-26.
Journal code: 2985120R. ISSN: 0021-9193.
AU Sun L; Fuchs J A
AN 94321333 MEDLINE

L123 ANSWER 15 OF 63 MEDLINE on STN DUPLICATE 9
TI A histone octamer can step around a transcribing polymerase without leaving the template.
SO Cell, (1994 Jan 28) Vol. 76, No. 2, pp. 371-82.
Journal code: 0413066. ISSN: 0092-8674.
AU Studitsky V M; Clark D J; Felsenfeld G
AN 94123343 MEDLINE

L123 ANSWER 16 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI In vitro transcription of Clostridium acetobutylicum heat shock genes;
possible role of inverted repeat in gene regulation of acetone and

butanol formation initiation (conference abstract)
SO Abstr.Gen.Meet.Am.Soc.Microbiol.; (1994) 94 Meet., 362
CODEN: 0005P
AU Mueller H; Bahl H
AN 1994-11192 BIOTECHDS

L123 ANSWER 17 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Histone H1-mediated inactivation of methylated templates in vitro
SO Biochemical Society Transactions (1994), 22(3), 298S
CODEN: BCSTB5; ISSN: 0300-5127
AU Johnson, Colin A.; Goddard, John P.; Adams, Roger L. P.
AN 1994:572240 HCAPLUS
DN 121:172240

L123 ANSWER 18 OF 63 MEDLINE on STN DUPLICATE 10
TI DNA binding and bending are necessary but not sufficient for Fis-dependent activation of rrnB P1.
SO Journal of bacteriology, (1993 Mar) Vol. 175, No. 6, pp. 1580-9.
Journal code: 2985120R. ISSN: 0021-9193.
AU Gosink K K; Ross W; Leirmo S; Osuna R; Finkel S E; Johnson R C; Gourse R L
AN 93194781 MEDLINE

L123 ANSWER 19 OF 63 MEDLINE on STN DUPLICATE 11
TI DNA topology and a minimal set of basal factors for transcription by RNA polymerase II.
SO Cell, (1993 May 7) Vol. 73, No. 3, pp. 533-40.
Journal code: 0413066. ISSN: 0092-8674.
AU Parvin J D; Sharp P A
AN 93258817 MEDLINE

L123 ANSWER 20 OF 63 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN
TI Monoclonal antibodies to cruciform DNA structures - used for detection, isolation and study of cruciform DNA structures and associated gene elements.
PI CA 1294906 C 19920128 (199308)* 26
US 5192683 A 19930309 (199312)# 14 C12N005-20
IN FRAPPIER, L; PRICE, G; ZANNIS-HADJOPOULOS, M

L123 ANSWER 21 OF 63 MEDLINE on STN DUPLICATE 12
TI Differential effect of DNA supercoiling on transcription of adenovirus genes in vitro.
SO The Journal of general virology, (1992 Oct) Vol. 73 (Pt 10), pp. 2631-8.
Journal code: 0077340. ISSN: 0022-1317.
AU Banerjee S; Spector D J
AN 93019018 MEDLINE

L123 ANSWER 22 OF 63 MEDLINE on STN DUPLICATE 13
TI The NusA and NusG proteins of Escherichia coli increase the in vitro readthrough frequency of a transcriptional attenuator preceding the gene for the beta subunit of RNA polymerase.
SO The Journal of biological chemistry, (1992 Jan 25) Vol. 267, No. 3, pp. 1449-54.
Journal code: 2985121R. ISSN: 0021-9258.
AU Linn T; Greenblatt J
AN 92112854 MEDLINE

L123 ANSWER 23 OF 63 MEDLINE on STN DUPLICATE 14
TI Application of the polymerase chain reaction to the ribonuclease protection assay.
SO BioTechniques, (1992 Dec) Vol. 13, No. 6, pp. 922-7.
Journal code: 8306785. ISSN: 0736-6205.
AU Yang H; Melera P W
AN 93119653 MEDLINE

L123 ANSWER 24 OF 63 MEDLINE on STN DUPLICATE 15

TI DNA supercoiling response of the sigma 54-dependent Klebsiella pneumoniae nifL promoter in vitro.
SO Journal of molecular biology, (1992 Jun 5) Vol. 225, No. 3, pp. 591-607. Journal code: 2985088R. ISSN: 0022-2836.
AU Whitehall S; Austin S; Dixon R
AN 92292148 MEDLINE

L123 ANSWER 25 OF 63 MEDLINE on STN DUPLICATE 16
TI Defining nucleic acid-binding properties of avian retrovirus integrase by deletion analysis.
SO Journal of virology, (1991 Mar) Vol. 65, No. 3, pp. 1160-7. Journal code: 0113724. ISSN: 0022-538X.
AU Mumm S R; Grandgenett D P
AN 91140704 MEDLINE

L123 ANSWER 26 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI A coupled in vitro transcription-translation system for the exclusive synthesis of polypeptides expressed from the T7 promoter;
high level gene expression in Escherichia coli cell-free extract
SO FEBS Lett.; (1991) 291, 2, 259-63
CODEN: FEBLAL
AU Nevin D E; *Pratt J M
AN 1991-14515 BIOTECHDS

L123 ANSWER 27 OF 63 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 17
TI PATCHED CIRCLE POLYMERASE CHAIN-REACTION
SO BIOTECH FORUM EUROPE, (MAR 1991) Vol. 8, No. 3, pp. 130-132. ISSN: 0938-7501.
AU SONG C Z (Reprint); YANG K Y
AN 1991:426701 SCISEARCH

L123 ANSWER 28 OF 63 MEDLINE on STN DUPLICATE 18
TI Effects of the DNA topoisomerase II inhibitor, VM26, on transcriptional initiation in vitro.
SO Life sciences, (1990) Vol. 46, No. 18, pp. 1309-18. Journal code: 0375521. ISSN: 0024-3205.
AU Preston G M; White B A
AN 90265212 MEDLINE

L123 ANSWER 29 OF 63 MEDLINE on STN DUPLICATE 19
TI Transcription elongation factor SII (TFIIS) enables RNA polymerase II to elongate through a block to transcription in a human gene in vitro.
SO The Journal of biological chemistry, (1989 Jun 25) Vol. 264, No. 18, pp. 10799-809. Journal code: 2985121R. ISSN: 0021-9258.
AU Reines D; Chamberlin M J; Kane C M
AN 89278155 MEDLINE

L123 ANSWER 30 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI A novel yeast secretion signal isolated from 28K killer precursor protein encoded on the linear DNA plasmid pGKL1;
foreign protein secretion and glycosylation from Saccharomyces cerevisiae host
SO Nucleic Acids Res.; (1988) 16, 15, 7499-511
CODEN: NARHAD
AU Tokunaga M; Wada N; Hishinuma F
AN 1988-10612 BIOTECHDS

L123 ANSWER 31 OF 63 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 20
TI Difference between supercoiled and linear deoxyribonucleic acids in preinitiation complex formation for accurate transcription in vitro.

SO CHEM. PHARM. BULL. (TOKYO)., (1988) vol. 36, no. 7, pp. 2517-2522.
AU Ohtsuki, M.; Nakanishi, Y.; Sekimizu, K.; Natori, S.
AN 88:81496 LIFESCI

L123 ANSWER 32 OF 63 MEDLINE on STN DUPLICATE 21
TI In vitro transcription of eukaryotic genes
is affected differently by the degree of DNA supercoiling.
SO Proceedings of the National Academy of Sciences of the United States of America, (1988 Feb) Vol. 85, No. 3, pp. 718-22.
Journal code: 7505876. ISSN: 0027-8424.
AU Hirose S; Suzuki Y
AN 88124913 MEDLINE

L123 ANSWER 33 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Torsional stress, unusual DNA structures, and eukaryotic gene expression
SO Unusual DNA Struct., Proc. Gulf Shores Symp., 1st (1988), Meeting Date 1987, 73-89. Editor(s): Wells, Robert D.; Harvey, Stephen C. Publisher: Springer, New York, N. Y.
CODEN: 56JOAO
AU Cantor, Charles R.; Bondopadhyay, Subhasis; Bramachari, Shamir K.; Hui, Cho Fat; McClelland, Michael; Morse, Randall; Smith, Cassandra L.
AN 1988:623809 HCAPLUS
DN 109:223809

L123 ANSWER 34 OF 63 MEDLINE on STN DUPLICATE 22
TI The yeast tRNA(Phe) gene family: structures and transcriptional activities reveal member differences not explained by intragenic promoters.
SO DNA (Mary Ann Liebert, Inc.), (1987 Aug) Vol. 6, No. 4, pp. 353-62.
Journal code: 8302432. ISSN: 0198-0238.
AU Bull P; Thorikay M; Moenne A; Wilkens M; Sanchez H; Valenzuela P; Venegas A
AN 88003973 MEDLINE

L123 ANSWER 35 OF 63 MEDLINE on STN DUPLICATE 23
TI Identification of intrinsic termination sites in vitro for RNA polymerase II within eukaryotic gene sequences.
SO Journal of molecular biology, (1987 Jul 20) Vol. 196, No. 2, pp. 299-312.
Journal code: 2985088R. ISSN: 0022-2836.
AU Reines D; Wells D; Chamberlin M J; Kane C M
AN 88011331 MEDLINE

L123 ANSWER 36 OF 63 MEDLINE on STN DUPLICATE 24
TI Transcription of vaccinia virus early genes by enzymes isolated from vaccinia virions terminates downstream of a regulatory sequence.
SO Cell, (1986 Sep 26) Vol. 46, No. 7, pp. 1029-35.
Journal code: 0413066. ISSN: 0092-8674.
AU Rohrmann G; Yuen L; Moss B
AN 87002467 MEDLINE

L123 ANSWER 37 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI Prokaryotic gene expression in vitro: transcription-translation coupled systems;
a review
SO Biochimie; (1986) 68, 4, 505-15
CODEN: BICMBE
AU Cenatiempo Y
AN 1986-09779 BIOTECHDS

L123 ANSWER 38 OF 63 MEDLINE on STN DUPLICATE 25
TI Transcription of Escherichia coli ara in vitro
. The cyclic AMP receptor protein requirement for PBAD induction that depends on the presence and orientation of the araO2 site.
SO Journal of molecular biology, (1986 Apr 5) Vol. 188, No. 3, pp. 355-67.
Journal code: 2985088R. ISSN: 0022-2836.
AU Hahn S; Hendrickson W; Schleif R

AN 86281694 MEDLINE

L123 ANSWER 39 OF 63 MEDLINE on STN DUPLICATE 26
TI The role of upstream sequences in determining the strength of an rRNA promoter of E. coli.
SO Biochimica et biophysica acta, (1986 Feb 24) Vol. 866, No. 1, pp. 37-43.
Journal code: 0217513. ISSN: 0006-3002.
AU Petho A; Belter J; Boros I; Venetianer P
AN 86131683 MEDLINE

L123 ANSWER 40 OF 63 LIFESCI COPYRIGHT 2006 CSA on STN
TI The role of upstream sequences in determining the strength of an rRNA promoter of E. coli .
SO BIOCHIM. BIOPHYS. ACTA., (1986) vol. 866, no. 1, pp. 37-43.
AU Pethoe, A.; Belter, J.; Boros, I.; Venetianer, P.
AN 86:4249 LIFESCI

L123 ANSWER 41 OF 63 MEDLINE on STN DUPLICATE 27
TI Enhanced transcription of fibroin gene in vitro on covalently closed circular templates.
SO The Journal of biological chemistry, (1985 Sep 5) Vol. 260, No. 19, pp. 10557-62.
Journal code: 2985121R. ISSN: 0021-9258.
AU Hirose S; Tsuda M; Suzuki Y
AN 85289239 MEDLINE

L123 ANSWER 42 OF 63 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI IN-VITRO TRANSCRIPTION INITIATION BY PURIFIED RNA POLYMERASE II WITHIN THE ADENOVIRUS 2 MAJOR LATE PROMOTER REGION.
SO Journal of Biological Chemistry, (1984) Vol. 259, No. 4, pp. 2236-2242.
CODEN: JBCHA3. ISSN: 0021-9258.
AU MISHOE H [Reprint author]; BRADY J N; LANCZ G; SALZMAN N P
AN 1984:274346 BIOSIS

L123 ANSWER 43 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
TI Inhibition of eukaryotic tRNA transcription by potential Z-DNA sequences; studied using Xenopus laevis oocyte microinjection
SO EMBO J.; (1984) 3, 7, 1553-59
AU Santoro C; Costanzo F; Ciliberto G
AN 1984-08460 BIOTECHDS

L123 ANSWER 44 OF 63 MEDLINE on STN DUPLICATE 28
TI Homologous in vitro transcription of linear DNA fragments containing the tRNAArg-tRNAAsp gene pair from Saccharomyces cerevisiae.
SO DNA (Mary Ann Liebert, Inc.), (1984) Vol. 3, No. 2, pp. 167-71.
Journal code: 8302432. ISSN: 0198-0238.
AU Kjellin-Straby K; Engelke D R; Abelson J
AN 84207439 MEDLINE

L123 ANSWER 45 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Effect of polyamines on in vitro transcription
SO Shengwu Huaxue Yu Shengwu Wuli Jinzhan (1984), 58, 38-41
CODEN: SHYCD4; ISSN: 0253-9918
AU Han, Yumin
AN 1985:19718 HCAPLUS
DN 102:19718

L123 ANSWER 46 OF 63 MEDLINE on STN DUPLICATE 29
TI In vitro coupled transcription-translation of linear DNA fragments in a lysate derived from a recB rna pnp strain of Escherichia coli.
SO Journal of bacteriology, (1983 Dec) Vol. 156, No. 3, pp. 1359-62.
Journal code: 2985120R. ISSN: 0021-9193.

AU Bassett C L; Rawson J R
AN 84061649 MEDLINE

L123 ANSWER 47 OF 63 MEDLINE on STN DUPLICATE 30
TI Analysis of ColE1 expression in vitro after chromosome fragmentation.
SO Journal of bacteriology, (1983 May) Vol. 154, No. 2, pp. 650-5.
Journal code: 2985120R. ISSN: 0021-9193.
AU Chen H Z; Zubay G
AN 83186014 MEDLINE

L123 ANSWER 48 OF 63 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 31
TI Analysis of ColE1 expression in vitro after chromosome fragmentation.
SO Journal of Bacteriology, (1983) Vol. 154, No. 2, pp. 650-655. .
CODEN: JOBAAY
AU Hui Zhu Chen; Zubay G.
AN 83149850 EMBASE

L123 ANSWER 49 OF 63 MEDLINE on STN DUPLICATE 32
TI Accurate and specific polyadenylation of mRNA precursors in a soluble whole-cell lysate.
SO Cell, (1983 Jun) Vol. 33, No. 2, pp. 595-605.
Journal code: 0413066. ISSN: 0092-8674.
AU Manley J L
AN 83232894 MEDLINE

L123 ANSWER 50 OF 63 MEDLINE on STN DUPLICATE 33
TI Enhanced polypeptide synthesis programmed by linear DNA fragments in cell-free extracts lacking exonuclease V.
SO FEBS letters, (1983 Nov 14) Vol. 163, No. 2, pp. 221-4.
Journal code: 0155157. ISSN: 0014-5793.
AU Jackson M; Pratt J M; Holland I B
AN 84058336 MEDLINE

L123 ANSWER 51 OF 63 MEDLINE on STN DUPLICATE 34
TI Linear DNA does not form chromatin containing regularly spaced nucleosomes.
SO Molecular and cellular biology, (1982 Dec) Vol. 2, No. 12, pp. 1608-18.
Journal code: 8109087. ISSN: 0270-7306.
AU Mertz J E
AN 2003505602 MEDLINE

L123 ANSWER 52 OF 63 MEDLINE on STN DUPLICATE 35
TI The influence of DNA gyrase on the transcription of linear DNA in vitro.
SO FEBS letters, (1982 Apr 19) Vol. 140, No. 2, pp. 260-2.
Journal code: 0155157. ISSN: 0014-5793.
AU Shmerling Zh G; Gragerov A I
AN 82211174 MEDLINE

L123 ANSWER 53 OF 63 MEDLINE on STN DUPLICATE 36
TI Cell-free coupled transcription-translation system for investigation of linear DNA segments.
SO Proceedings of the National Academy of Sciences of the United States of America, (1980 Dec) Vol. 77, No. 12, pp. 7029-33.
Journal code: 7505876. ISSN: 0027-8424.
AU Yang H L; Ivashkiv L; Chen H Z; Zubay G; Cashel M
AN 81175083 MEDLINE

L123 ANSWER 54 OF 63 MEDLINE on STN DUPLICATE 37
TI Structure of murine sarcoma virus DNA replicative intermediates synthesized in vitro.
SO Journal of virology, (1980 Jan) Vol. 33, No. 1, pp. 377-89.
Journal code: 0113724. ISSN: 0022-538X.

AU Dina D; Benz E W Jr
AN 80163015 MEDLINE

L123 ANSWER 55 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Synthesis of adenovirus 2 RNA in vitro: properties of the major later transcript and its promoter
SO ICN-UCLA Symposia on Molecular & Cellular Biology (1980), 18(Anim. Virus Genet.), 353-67
CODEN: IUSMDJ; ISSN: 0097-9023
AU Manley, James L.; Hu, Shiu-Lok; Sharp, Philip A.; Gefter, Malcolm L.
AN 1981:98181 HCAPLUS
DN 94:98181

L123 ANSWER 56 OF 63 MEDLINE on STN DUPLICATE 38
TI The use of R-looping for structural gene identification and mRNA purification.
SO Nucleic acids research, (1979 Jun 11) Vol. 6, No. 7, pp. 2483-97.
Journal code: 0411011. ISSN: 0305-1048.
AU Woolford J L Jr; Rosbash M
AN 79223445 MEDLINE

L123 ANSWER 57 OF 63 MEDLINE on STN DUPLICATE 39
TI In vitro transcripts from the rrn B ribosomal RNA cistron originate from two tandem promoters.
SO Cell, (1979 Jan) Vol. 16, No. 1, pp. 111-21.
Journal code: 0413066. ISSN: 0092-8674.
AU Glaser G; Cashel M
AN 79126020 MEDLINE

L123 ANSWER 58 OF 63 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 40
TI TRANSCRIPTION OF POLYOMA VIRUS DNA IN-VITRO PART 2 TRANSCRIPTION OF SUPER HELICAL AND LINEAR POLYOMA DNA BY RNA POLYMERASE II.
SO Journal of Molecular Biology, (1978) Vol. 124, No. 1, pp. 73-86.
CODEN: JMOBAK. ISSN: 0022-2836.
AU LESCURE B [Reprint author]; CHESTIER A; YANIV M
AN 1979:141874 BIOSIS

L123 ANSWER 59 OF 63 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 41
TI AN ELECTRON MICROSCOPIC COMPARISON OF TRANSCRIPTION ON LINEAR AND SUPER HELICAL DNA.
SO Journal of Molecular Biology, (1976) Vol. 105, No. 1, pp. 161-176.
CODEN: JMOBAK. ISSN: 0022-2836.
AU BOTCHAN P
AN 1976:236380 BIOSIS

L123 ANSWER 60 OF 63 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 42
TI TRANSCRIPTION OF POLYOMA VIRUS DNA IN-VITRO LOCALIZATION OF ESCHERICHIA-COLI RNA POLYMERASE INITIATION SITES.
SO Journal of Molecular Biology, (1976) Vol. 108, No. 1, pp. 83-98.
CODEN: JMOBAK. ISSN: 0022-2836.
AU LESCURE B; OUDET P; CHAMBON P; YANIV M
AN 1977:137465 BIOSIS

L123 ANSWER 61 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI In vitro transcription of polyoma virus DNA
SO Colloque INSERM (1975), 47(In Vitro Transcription Transl. Viral Genomes), 83-91
CODEN: CINMDE; ISSN: 0768-3154
AU Yaniv, Moshe; Cremisi, Chantal; Croissant, O.; Oudet, P.; Pignatti, Pierre F.; Lescure, B.
AN 1976:442441 HCAPLUS

DN 85:42441

L123 ANSWER 62 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Characterization of polypeptides made in vitro from bacteriophage lambda DNA
SO Journal of Molecular Biology (1973), 78(4), 589-600
CODEN: JMOBAK; ISSN: 0022-2836
AU Allet, Bernard; Katagiri, Kazuo J.; Gesteland, Raymond F.
AN 1973:513143 HCAPLUS
DN 79:113143

L123 ANSWER 63 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
TI Double-stranded viral and cellular DNA's as templates for purified mammalian DNA-dependent RNA polymerases
SO Colloquium der Gesellschaft fuer Biologische Chemie (1973), 24, 125-38
CODEN: CGBCA9; ISSN: 0366-5887
AU Chambon, P.; Mandel, J. L.; Gissinger, F.; Kedinger, C.; Gross-Bellard, M.; Hossenlopp, P.
AN 1974:446499 HCAPLUS
DN 81:46499

=> d ab 1,4,5,7,10-13,21,26,31-33,37,44-46,50,52,53,58,59,62

L123 ANSWER 1 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
AB Described is an improved cell-free protein synthesis system using PCR amplified DNA as template. Addition of excess linear nucleic acids unrelated to the template in the reaction mixture to counteract the degradation of linear DNA template is described. Cell-free synthesis of chloramphenicol acetyl transferase (CAT) using Escherichia coli cell extract; T-7 RNA polymerase; and a DNA construct containing T7 promoter, the ribosome-binding site, the template DNA, and the T7 terminator, with addition of salmon sperm DNA or calf thymus DNA is described.

L123 ANSWER 4 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
AB The authors provide detailed methods for synthesis of RNA by transcription in vitro from a linear DNA template. Preparation of the DNA template, the transcription reaction, and enrichment of the RNA product are all discussed.

L123 ANSWER 5 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
AB coli cell-free protein synthesis systems have great potential but are limited by undesirable metabolic reactions. To improve these systems, we must first understand the limitations and then remove them. Knowledge of E. coli metabolism and genomic sequence as well as numerous genetic tools allows such anal. and optimization. Several targets have been identified. In phosphoenol pyruvate driven reactions, amino acid anal. showed that arginine, tryptophan and cysteine were being depleted. Preliminary expts. suggested that arginine decarboxylase (speA gene) and tryptophanase (tnaA gene) were responsible. One of our goals is to express proteins from PCR products. However, we observed that in cell exts. of the E. coli strain A19, linear DNA is unstable due to the activity of nucleases. Chief candidates are exonuclease V (recD gene) and endonuclease A (endA gene). These genes are targets for marker-free gene inactivation. The procedure for mutagenesis will be presented, as well as the impact on cell-free protein synthesis.

L123 ANSWER 7 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
AB The authors describe the synthesis of RNA by transcription from a linear DNA template using bacteriophage RNA polymerases.

L123 ANSWER 10 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
AB A simple method was developed for direct expression of polymerase chain

reaction (PCR)-generated linear DNA in a cell
-free transcription-translation system,
without cloning fragments in a plasmid vector. The method was adapted to production of recombinant cecropin from an artificial gene. An oligonucleotide encoding cecropin was synthesized, and a set of tandem multimeric genes without stop codons was obtained by modified splicing overlap extension. A megaprimer containing a phage T7 promoter and ribosome binding site, with s10 leader and Shine-Dalgarno sequences, was amplified by PCR from plasmid pET21d(+), and used to add expression elements to the gene. An unpurified PCR mixture was added to Escherichia coli S30 extract with phage T7 RNA-polymerase (EC-2.7.7.6) for cell-free transcription-translation
, giving a cecropin yield of up to 3 nmol monomer/ml. This approach should be useful for direct in vitro expression of polypeptides and proteins that are unstable in living cells, or proteins that are strongly cytotoxic. (14 ref)

L123 ANSWER 11 OF 63 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 6
AB A method is presented in which an in vitro gene expression system for linear DNA templates based on bacterial extracts was
directly coupled to a protein purification method. This method allows the production of purified, biologically active, recombinant proteins directly from polymerase-chain-reaction-amplified DNA containing all regulatory elements necessary for transcription and translation in a one-tube reaction within a few hours. The purified material can be directly used in biological testing. Because in vitro transcription or
translation is carried out in bacterial extracts, subsequent large-scale production of the desired recombinant protein can be performed in Escherichia coli by using the same construct as for the in vitro expression, thus avoiding laborious and time-consuming subcloning. Furthermore, by using this system, host cell transformation and growth, in vivo gene expression, and protein purification procedures can be avoided for many applications.

L123 ANSWER 12 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
AB Currently there are two methods to analyze promoter activities in vitro. The first method involves transcription from supercoiled plasmids. To reduce the time of this assay, one can use a linearized DNA template instead of the supercoiled template. This second method involves incubating the linearized DNA, mammalian extract, NTPs and a radiolabeled ribonucleotide triphosphate. This produces a radiolabeled runoff transcript. This method has the disadvantage of being less efficient because linear DNA is transcribed less efficiently
than supercoiled DNA. This dilemma was overcome by the (G)-free transcription cassette. Although this technique works very well, it is not under natural conditions because GTP is absent. Ribozymes have allowed a novel approach to this problem. Here the authors describe a method that allows the use of a supercoiled template and all four NTPs, utilizing a self-cleaving hammerhead ribozyme.

L123 ANSWER 13 OF 63 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 7
AB A method is presented in which an in vitro gene expression system for linear DNA templates based on bacterial extracts was
directly coupled to a protein purification method. This method allows the production of purified, biologically active, recombinant proteins directly from polymerase-chain-reaction-amplified DNA containing ail regulatory elements necessary for transcription and translation in a one-tube reaction within a few hours. The purified material can be directly used in biological testing. Because in vitro
transcription or translation is carried out in bacterial extracts, subsequent large-scale production of the desired recombinant protein can be performed in Escherichia coli by using the same construct as for the in vitro expression, thus avoiding laborious and time-consuming subcloning. Furthermore, by using this system, host cell transformation

and growth, in vivo gene expression, and protein purification procedures can be avoided for many applications. Methods Mel. Cell. Biol. 6:94-103, 1997. (C) 1997 Wiley-Liss, Inc.

L123 ANSWER 21 OF 63 MEDLINE on STN DUPLICATE 12
AB We examined the effect of DNA template topology on the transcription of immediate early (E1a), early (E1b) and late (pIX) adenovirus genes in vitro. Transcription in whole cell extracts was measured by quantitative hybridization to end-labelled DNA and protection of hybrids from S1 nuclease digestion. Two- to fourfold more E1a RNA was synthesized from supercoiled, compared to linear, DNA templates. Similarly, transcription of the E1b gene was stimulated three- to sevenfold when the template was supercoiled. In contrast, RNA synthesis from the late pIX gene was found to be independent of DNA topology. These results show that DNA topology affects transcription in a promoter-specific manner.

L123 ANSWER 26 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
AB A coupled transcription-translation in vitro system was developed in Escherichia coli for the generation of polypeptides cloned downstream of the phage T7 promoter. The system consists of a cell-free, DNA-free extract of E. coli S30 (cells contain endogenous T7 RNA-polymerase, EC-2.7.7.6), rifampicin (an E. coli RNA-polymerase-inhibitor), a labeled amino acid (usually 35S-methionine) and a low mol.weight mixture which provides a supplement of factors including amino acids and nucleotide triphosphates. When primed with template DNA (phage, plasmid or linear DNA fragments), preferably plasmid pMJ216, encoding the target gene under exclusive control of the T7 promoter, this system has the capability to synthesize relatively large amounts of a unique, labeled polypeptide. This coupled system is simple to prepare and use, and yields more polypeptide product from a given amount of DNA template than when the processes of transcription and translation are uncoupled. (13 ref)

L123 ANSWER 31 OF 63 LIFESCI COPYRIGHT 2006 CSA on STN DUPLICATE 20
AB A nuclear extract of Ehrlich ascites tumor cells was separated into three fractions that were essential for accurate transcription initiation. Studies with these fractions showed that the efficiency of transcription of supercoiled deoxyribonucleic acid (DNA) was better than that of linear DNA. A clear difference was found in the rates of formation of a preinitiation complex with these two templates. Consistent with this difference, the results of gel shift assay showed that the complex of supercoiled DNA with transcription factors is much more complicated than that of linear DNA.

L123 ANSWER 32 OF 63 MEDLINE on STN DUPLICATE 21
AB In a posterior silk gland extract, covalently closed circular (ccc) DNA is in a superhelical state that supports more transcription of fibroin gene than does linear DNA. A HeLa cell extract showed neither the supercoiling activity nor the preference for the transcription of ccc DNA over linear DNA. These activities could be added to the HeLa cell extract. Phosphocellulose fractionation of the posterior silk gland extract yielded a flow-through fraction and a 0.6 M KCl eluate fraction that were required for the supercoiling and for the efficient transcription of the ccc template in the acceptor HeLa cell extract. The 0.6 M KCl fraction had a DNA topoisomerase II activity, and the flow-through fraction contained a supercoiling factor that, with the aid of topoisomerase II, introduced negative supercoils into ccc DNA. When both fractions were added to the posterior silk gland extract, more supercoiling occurred than with the extract alone. Several genes were optimally transcribed under various extents of supercoiling. The fibroin gene and adenovirus 2 major late promoter were fully transcribed as partially supercoiled templates. The sericin gene required more supercoiling for full transcription, whereas no preference for supercoiling was seen with the transcription of hsp70. These results

suggest that DNA topology plays a role in the regulation of gene expression.

L123 ANSWER 33 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
AB The constraints imposed on DNA by torsional stress and the consequences of resulting DNA topol. on in vitro transcription were studied. Form V DNA, prepared by annealing complementary circular DNA single strands of pBR322, with a resulting superhelical d. greater than 10 times that observed in vivo, was used to demonstrate that approx. half of the DNA sites were resistant to methylation and altered in structure. Very short stretches of alternate and normal structure were observed. Measurements of DNA rotation on the surface of nucleosomes and nucleosome rotation with respect to each other revealed that adjacent nucleosomes in chromatin cannot rotate relative to each other and that isolated topol. domains exist at each nucleosome. Systematic variation of an in vitro system for transcription of SV40 DNA resulted in conditions where at low DNA concns. (2.5 μg/mL) transcription from supercoiled DNA was maximal while that from linear DNA was insignificant, demonstrating a clear in vitro effect of DNA topol. on the level of gene expression. Comparison of both linear and supercoiled plasmid DNA by pulsed gel electrophoresis reveals that supercoils reorient about 10 times faster in a gel than the corresponding linear forms, implying that the average supercoil condenses the net mol. length by 10-fold. The aspects of such condensed and torsionally stressed DNA on eukaryotic gene expression is discussed.

L123 ANSWER 37 OF 63 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
AB The use of DNA-dependent protein synthesizing systems for studying the mechanisms of translation, transcription and their regulation is reviewed. The need for a simpler in vitro coupled system is a result of the development of recombinant DNA technology and the increasing use of plasmids. Accordingly, partially reconstituted systems were described for studies on ribosomal protein genes and the problem of linear DNA expression was discussed. Highly defined systems containing up to 30 different, purified protein factors required for transcription and translation are a means of obtaining new information in a system free from interference of gene expression by contaminants. A method which would enable the production of single proteins in a transcription-translation system of prokaryotic and eukaryotic origin is regarded as a new approach towards the development of a universal in vitro expression system. (105 ref)

L123 ANSWER 44 OF 63 MEDLINE on STN DUPLICATE 28
AB Transcription of a tRNAArg-tRNAAsp gene pair from Saccharomyces cerevisiae by an homologous yeast extract results in a dimeric percursor molecule which is processed to mature-sized tRNAArg and tRNAAsp molecules. We have transcribed linear DNA fragments cleaved within the gene sequences to show that precursor synthesis is not dependent on the internal promoter of the second gene (tRNAAsp). Furthermore, the second gene does not support independent transcription when the normal upstream initiation site is removed.

L123 ANSWER 45 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN
AB The transcription activity of an in vitro mouse RNA polymerase system with double-stranded calf thymus DNA as template was increased 2-4- and 1-3-fold by the addition of 1-10 mM spermine (I) and spermidine (II), resp. At concns. of 0.2-0.5 mM, I also stimulated the transcription activity of an in vitro Escherichia coli RNA polymerase system in the presence of double-stranded DNA; however I at concns. of 1.0-5.0 mM markedly reduced the transcription activity. II activated transcription activity in the E. coli RNA polymerase system at all concns. tested (0.2-5.0 mM). The effect of polyamines, especially I, on transcription activity of both RNA polymerase systems was dependent on the template DNAs used. In the presence of a double-stranded DNA template, RNA synthesis in the mouse RNA polymerase system was stimulated by I at

all concns. (0.5-10 mM) tested, whereas RNA synthesis was not affected by I when single-stranded denatured calf thymus DNA or single-stranded circular DNA (M13 phage) was used as template. With the double-stranded DNA template, ≤0.5 mM I stimulated RNA synthesis in the E. coli RNA polymerase system, but inhibited RNA synthesis at ≥1 mM. The E. coli RNA synthesis system was inhibited by all concns. of I tested in the presence of single-stranded linear DNA template, but was slightly enhanced when the single-stranded circular DNA template was used.

L123 ANSWER 46 OF 63 MEDLINE on STN DUPLICATE 29
AB A recB21 derivative (CLB7) of an Escherichia coli rna-19 pnp-7 strain (PR7) was constructed for use in examining the in vitro coupled transcription-translation of linear DNA. The expression of linearized DNAs in CLB7 (recB21 rna-19 pnp-7) lysates was enhanced significantly when compared with expression of the same DNAs in lysates prepared from the PR7 or the original recB21 (CF300) strains. In addition, the endogenous incorporation of [35S]methionine into protein was considerably reduced in CLB7 lysates relative to lysates derived from the original recB21 strain.

L123 ANSWER 50 OF 63 MEDLINE on STN DUPLICATE 33
AB Preparation of an in vitro coupled transcription-translation system from E. coli strains lacking exonuclease V has greatly improved the system for use with added linear DNA fragments. In fact, in extracts of these mutants linear fragments are stable for several hours. However the cell extracts show a high level of endogenous background. To avoid this complication extracts were prepared at 30 degrees C from a mutant carrying a temperature-sensitive exonuclease V. Polypeptides coded by a specific DNA region, e.g., delineated by restriction endonuclease sites, can now be easily identified.

L123 ANSWER 52 OF 63 MEDLINE on STN DUPLICATE 35

L123 ANSWER 53 OF 63 MEDLINE on STN DUPLICATE 36
AB Heretofore the DNA-directed coupled transcription-translation system, most useful in gene expression analysis, has been limited to the use of circular or long linear DNAs. Linear DNAs are degraded in this system by an exonucleolytic activity that can be eliminated by making the synthetic extracts from a suitable recB mutant of Escherichia coli. Using these extracts, we have examined the gene expression of a variety of linear DNAs. In particular, the complex pattern of expression of ribosomal protein genes and RNA polymerase genes in the rpoBC-rplLJ region has been analyzed by comparing the protein products obtained when using lambda rifd18 DNA with the product obtained when using the same DNA segmented with various restriction enzymes. The results obtained confirm the conclusions of others obtained by much more elaborate in vivo techniques. It seems highly likely that this cell-free system will have extensive applications in the area of analysis of gene expression.

L123 ANSWER 58 OF 63 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 40
AB Several steps in the transciption of double-stranded polyoma DNA by calf thymus RNA polymerase II(B) were analyzed. EM observations show that, as found for the Escherichia coli enzyme, the eucaryotic RNA polymerase exhibits a higher affinity for superhelical DNA as compared to linear DNA. The half-time of complexes formed at 37° C between the enzyme and superhelical DNA is relatively short (30-60 s), compared with 30 h for the E. coli enzyme under identical conditions. Binary complexes formed with linear DNA have a faster dissociation rate. The same results were obtained by using the nitrocellulose binding assay or by measuring the decay of heparin-resistant complexes. Only ternary complexes, enzyme-DNA-RNA, obtained after the formation of the 1st phosphodiester bond, are resistant

to polyanions. As for the procaryotic enzyme, RNA polymerase II probably has to melt locally the double-stranded DNA during initiation, but it probably lacks a σ type factor necessary to stabilize the open initiation complexes. RNA polymerase II synthesizes shorter RNA chains than E. coli RNA polymerase. The formation of RNase I resistant RNA-DNA hybrids during transcription may explain the reduced rate of chain elongation.

L123 ANSWER 59 OF 63 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 41

AB EM of nascent RNA chains was used to localize promoters on linear and negatively superhelical [phage] λ DNA. Transcription was performed in vitro using Escherichia coli RNA polymerase. RNA from 4 promoters was seen on linear λ DNA: these include the λ PL and PR promoters, which are the main early λ promoters in vivo, and 2 promoters within the b2 region. To orient the circular DNA for EM, a restriction enzyme isolated from Streptomyces albus G (Sal I) was used to cleave the DNA at unique points. The Sal I cleavage sites on λ DNA were at 67.3% and 68.3% on the linear map. Visualization of nascent RNA transcribed from superhelical λ DNA indicates that transcription increases from PL and PR with a particularly large increase from PL, and there is a transcription activation from promoters that are not used on the linear DNA and that coincide with the areas of λ which are most readily denatured and which possess the highest A + T content. The activation of such regions and the increased efficiency of the promoters used on linear DNA are discussed in terms of the energetics of unwinding a negatively superhelical DNA by a ligand such as RNA polymerase. The association of A + T-rich regions with promoters and the possible role of superhelicity in transcriptional activation in vivo are discussed.

L123 ANSWER 62 OF 63 HCAPLUS COPYRIGHT 2006 ACS on STN

AB Polypeptides made in an in vitro DNA-dependent protein-synthesizing system from the linear DNAs of different mutants and hybrids of bacteriophage λ were examined The methionine-35S-labeled products were analyzed by Na dodecyl sulfate gel electrophoresis and by 2-dimensional fingerprinting of their tryptic peptides. Anal. of promoter mutants (sex1 and x13), of amber mutants in gene N, of deletion mutants (λb2, λdb30-7 nin5), and of substitution derivs. λi434, λi21 hy5) permitted assignment of many peptides to definite portions of λ DNA. Similar anal. of purified DNA fragments, produced by digestion of λ DNA with endonuclease RI (R.N. Yoshimori, 1971), made it possible to exam. independently the products controlled by different promoters. Most of the coupled polypeptide synthesis arose from early regions of λ DNA in vitro. Effects of repressor and of the transcription termination factor rho were also tested. Both efficiently reduced the over-all level of coupled translation, and with a specificity that helped characterize some gene products. The use of bacterial components from λ-infected or uninfected cells resulted in the same pattern of polypeptides. No difference was detected when circular instead of linear DNA mols. were used as template.

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	371.93	372.14

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-6.75	-6.75

STN INTERNATIONAL LOGOFF AT 16:59:36 ON 06 OCT 2006

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FILE 'HOME' ENTERED AT 14:19:06 ON 10 OCT 2006

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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
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11 FILES IN THE FILE LIST

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12,24,29,31,35,36,43,45,54,65,75,88,91,96,108,115,140,144,146,153,169,185,189

L61  ANSWER 12 OF 192     MEDLINE on STN                DUPLICATE 6
AB   The effects of zeolites and monocations on the protein
     synthesis in a cell-free system derived from
     wheat germ were investigated. M type of synthetic zeolite markedly
     enhanced the translation efficiency. Whereas this kind of stimulatory
     effect of zeolite in an Escherichia coli cell-free system resulted from a
     change in the salt compositions of the reaction solution with the addition
     of zeolite, the enhancement of protein synthesis in a
     wheat germ cell-free system was not due to the ion
     exchange reaction of zeolites. From the results of mRNA stability
     analysis, it was found that zeolite could stabilize the mRNA in a wheat
     germ cell-free protein synthesis
     system. The stabilization of mRNA by the simple addition of zeolites is
     useful for the enhancement of protein synthesis in a
     wheat germ cell-free system, since conventional
     methods to improve mRNA stability, such as the addition of
     nuclease inhibitor, have not been effective for a wheat
     germ cell-free system.

L61  ANSWER 24 OF 192  SCISEARCH  COPYRIGHT (c) 2006 The Thomson Corporation
     on STN                                          DUPLICATE 15
AB      Degradation of template mRNA lowers the efficiency of cell-
     free translation. Although cell-free
     translation system using wheat germ extract (WGE) is usually
     supplemented with placental RNase inhibitor (PRI) to
     stabilize mRNA, the decay rate of mRNA, however, was still fairly rapid.
     For elucidating cause of mRNA degradation in wheat germ cell-
     free translation system, the authors applied activity
     staining in SDS-PAGE gel to investigate ribonuclease activities in WGE.
     RNases or nucleases of molecular mass of about 65, 42, and 37 kDa were
     detected in WGE, and named WGa, WGb and WGc, respectively. WGb and WGc
     were nucleases that degraded both RNA and DNA, and WGa was an RNase.
     Polyguanylic acid (5'), poly[G], which was known to have affinity with
     RNases, strongly inhibited RNase activity in
     WGE. Addition of poly[G] to wheat germ cell-free
     translation system resulted in 7-fold increase in protein
     productivity. Luciferase mRNA that was added in the cell-
     free translation system as a template was not degraded
     in 90 min in the presence of poly[G] while it was degraded by 80% in 30
     min in the absence of poly[G]. The authors concluded that poly[G]
     improved the protein productivity of wheat germ cell-
     free translation system by inhibiting
     RNase activity that degrades template RNA. (C) 1999 Elsevier
     Science B.V. All rights reserved.

L61  ANSWER 29 OF 192     MEDLINE on STN                DUPLICATE 20
AB   mRNA stability is a limiting parameter for the efficiency of in vitro
     protein biosynthesis. In order to develop strategies to prolong the mRNA
     half-life, we investigated the ribonuclease activities in the complete
     Escherichia coli system, in the separate cell fractions 70S ribosomes and
     S-100 and in the non-cellular fraction. Our results imply that the amount
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of ribonucleolytic activities and the insensitivity to placental RNase inhibitor in the complete system are due to the 70S ribosome fraction, whereas the generation of small degradation products is due to the S-100 fraction. Remarkably, the human placental RNase inhibitor is able to reduce mRNA degradation in the bacterial S-100 fraction.

L61 ANSWER 31 OF 192 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 21

AB Antisense oligonucleotides, modified by a manganese(III)tris(4-N-methylpyridiniumyl)porphyrin (an artificial nuclease) and activated by an oxidant to promote their nuclease activity, exhibit a higher inhibitory effect on the in vitro translation of chloramphenicol acetyltransferase (CAT) mRNA than the corresponding unmodified oligonucleotides, This effect is as high as that observed in the presence of E. Coli RNase H.

L61 ANSWER 35 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN

AB Cell-free protein synthesis using wheat germ extract in the conventional batch reaction was studied, focusing on both a higher protein synthesis rate and a longer synthesis period. The following points were improved with considerable success: (1) Optimization of the reaction conditions of cell-free protein synthesis enabled a longer protein synthesis, ≤10 h, even in a batch system. (2) Condensation of wheat germ extract by precipitation with polyethylene glycol increased the initial protein synthesis rate by .apprx.10-fold; protein yield reached 0.12 mg/mL in only 3 h with the use of Cu2+, a possible inhibitor of RNase and phosphatase.

L61 ANSWER 36 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN

AB Copper ion, an inhibitor to RNase, 0.1-1 mM is used for in vitro protein synthesis using cell extract Protein synthesis using Escherichia coli extract in the presence of copper ion was shown.

L61 ANSWER 43 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN

AB In the Escherichia coli cell-free system, modification of the cell extract can be achieved by preparation of strains carrying an addnl. property or of those being induced with a certain gene expression prior to harvesting. The authors analyzed the cell-free system with S30 extract containing T7 RNA polymerases (S30 extract-T7pol) prepared from an E. coli BL21(DE3) strain, which includes T7 RNA polymerase from extrinsic genes by IPTG induction, as a model for the improvement of the cell-free system. The fact that a significant degree of mRNA degradation was observed in the cell-free system with S30 extract-T7pol indicates that an increase in RNase activity was an unfavorable influence derived from the cell-extract modification process. This influence was prohibited by the addition of an effective RNase inhibitor, such as copper ion, to the reaction mixture

L61 ANSWER 45 OF 192 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

AB JP 06225783 A UPAB: 19941109

Preparation of protein by using a cell-free protein synthesis system containing cell-free extract in which the protein concentrate is 15 mg/ml. or lower, the cell-free extract being pref. wheat germ extract.

USE/ADVANTAGE - Protein is prepared efficiently ca. 3 to 6 times higher than the conventional method.

In an example, wheat germ extract was prepared according to the method of K. Maruc and B. Dudock. 5 ml. of the crude extract was ultrafiltered through M10 to give 1 ml of wheat germ extract. The reaction liquor consisted of 20 mM HEPES buffer, 1 mM ATP, 20 micro MGTP. 2 mM DTF, 4mM

creatin phosphate, 40 micro-g/ml. creatine phosphokinase, 0.1 mM spermidine, 0/01 mM spermine, 40 micro-M amino acid, 0.5 mCi/ml. (35S) methionine, 1.0 U/micro-l RNase inhibitor, 75 ng/micro-l BMV RNA, 70 mM K acetate, 2 mM Mg acetate and 2 micro-l wheat germ extract and the total volume was made to be 10 micro-l. The reaction was carried out at 30deg.C. for 1 hr.. The protein concentration originated from the cell-free extract in the reaction liquor was 15 mg/ml. compared to 5 mg/ml. for a control using the crude extract. Dwg.0/0

L61 ANSWER 54 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
AB A method for coupling transcription and translation from DNA using a modified eukaryoteic cell-free extract containing Mg salts at a concentration that allows both transcription and translation occur in the system. The concentration of Mg is 2.5.apprx.3.5 mM, preferably, 2.6.apprx.3.0 mM. Transcription and translation of the luciferase gene from a DNA construct using a solution containing standard rabbit reticulocyte lysate, rNTP's, SP6 RNA polymerase, RNasin, Mg acetate, and other ingredients were demonstrated.

L61 ANSWER 65 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
AB A cell-free translation system for manufacture of proteins contains ribosomes, matrix RNA, ATP, GTP, and amino acids. The products are removed as they are formed, and ATP, GTP, and amino acids are continually added to maintain their original concentration The system is immobilized in microcapsules with membranes of polyelectrolyte complexes. Thus, 32,000 pmol of calcitonin was synthesized over 100 h using a wheat lysate, ribosomes, mRNA, and substrates immobilized in Na alginate-poly-L-lysine microcapsules.

L61 ANSWER 75 OF 192 LIFESCI COPYRIGHT 2006 CSA on STN
AB Conditions for in vitro translation of mRNA in cell-free extracts from cultured Spodoptera frugiperda cells were defined. Incorporation of (super(35)S)methionine into acid-precipitable material increased for approximately 1 hr, and was sensitive to the protein synthesis inhibitors pactamycin and cycloheximide. Micrococcal nuclease-treated lysate, primed with purified rabbit globin mRNA, synthesized a major protein with the size of full length globin, indicating that the lysate supported correct initiation and elongation of polypeptides.

L61 ANSWER 88 OF 192 MEDLINE on STN DUPLICATE 54
AB A phosphocellulose flowthrough fraction required for accurate transcription in vitro by RNA polymerase II was found to contain a DNase inhibitor which was necessary to maintain template integrity (Price D.H., Sluder A.E. & Greenleaf A.L. (1987) J. Biol. Chemical 262, 3244-3255). Starting with a Drosophila Kc cell nuclear extract, the DNase inhibitory activity has been purified 19,000-fold. In combination with the other necessary fractions, the highly purified inhibitor continues to support reconstruction of transcription. It thus appears to be the only required activity in the original phosphocellulose flowthrough fraction. The inhibitor is a protein which does not bind to DNA or inhibit DNase I, so that it has also been useful in assays for DNA binding proteins in crude, DNase-contaminated fractions.

L61 ANSWER 91 OF 192 MEDLINE on STN DUPLICATE 56
AB Cell-free protein synthesis in rabbit reticulocyte lysate translation mixtures has been studied during multi-hour incubations. In an impaired lysate obtained from cells stored at 0 degrees C before lysis, and showing a low initial rate of synthesis, translation could be stimulated by a factor of 4 by including RNase inhibitor and additional ATP and GTP. In

translation mixtures prepared from normal lysates, protein synthesis could be improved by approximately 50% by the addition of excess GTP. The observed increases in protein synthesis were obtained by improved maintenance of the initial rate of synthesis.

L61 ANSWER 96 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
AB A method is described for the preparation of wheat germ exts. for use in an in vitro translation system for the synthesis of high-mol.-weight proteins by modifying the method of W. Zagorski (1978) and by using high spermidine concns., human placental RNase inhibitor, and mRNAs extracted from plant RNA viruses. The efficiency of the method is comparable to that obtained in the reticulocyte lysate system.

L61 ANSWER 108 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 66
AB Three inhibitors of animal cell-free protein synthesis were isolated from barley seeds by ammonium sulfate fractionation. CM-cellulose chromatography and gel filtration on Bio-Gel P-60. The 3 inhibitors were all single chain, basic proteins with MW .apprx. 31,000 and with very similar amino acid compositions. In the rabbit reticulocyte lysate system, they inhibited in vitro translation to 50% at concentrations between 15 and 25 ng · ml-1, while in the wheat germ system, their effect was very weak. The 3 translation inhibitors showed no detectable RNase activity neither on ribosomal RNA from rabbit liver nor on homopolynucleotides.

L61 ANSWER 115 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
AB Modified procedures for preparation of rough microsomes (RM) and membrane-bound polysomes from rat liver that are active in cell-free protein synthesis in vitro are described. The major modifications are: (1) cell homogenization is performed in a slightly hypertonic sucrose solution lacking salts to prevent aggregation of organelles; (2) postmitochondrial supernatant is used as a source of the RM fraction, potent RNase inhibitor, and endogenous salts to keep microsomes in contact with the supernatant throughout the preparation; and (3) pelleting of the RM fraction is avoided by using sucrose cushions.

L61 ANSWER 140 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
AB The S-30 fraction (30,000 g supernatant) prepared from Escherichia coli by the method of Zubay et al. was treated with various concns. of DNase I at 30° for 30 min. At 0.1 μg/mL, DNase I decreased the rate of endogenous DNA-dependent protein formation by 90%. The DNase inhibitor G-actin at 50 μg/mL antagonized the effect of DNase I (0.5 μg/mL). G-actin alone had no effect on protein formation. This system may be used in the study of in vitro protein synthesis.

L61 ANSWER 144 OF 192 MEDLINE on STN DUPLICATE 84

L61 ANSWER 146 OF 192 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

L61 ANSWER 153 OF 192 MEDLINE on STN DUPLICATE 91
AB The RNA species synthesized in vitro by a transcribing nucleoprotein (TNP) complex of vesicular stomatitis virus (VSV) were translated with high efficiency in a fractionated cell-free system derived from reticulocytes. The use of TNP complexes isolated from VSV Indiana, VSV New Jersey, and Chandipura viruses showed that in each case the predominant polypeptides synthesized had electrophoretic mobilities identical to their virion N, NS, and M polypeptides in proportions reflecting those found in infected cells rather than purified virions. A minor polypeptide corresponding to unglycosylated polypeptide G was also observed, but the in vitro synthesis

of polypeptide L was not detected. The addition of RNase inhibitor to transcription mixtures markedly increased the rate of RNA synthesis. Furthermore, the messenger activity of the RNA was significantly enhanced. The inclusion of S-adenosyl L-methionine during transcription substantially increased the messenger activity of the product RNA, suggesting a requirement for methylation. Fractionation by oligodeoxythymidylic acid-cellulose chromatography revealed that the RNA required a polyadnylic acid tract for messenger activity.

L61 ANSWER 169 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
AB DNA hydrolysis in chromatin by DNase I (EC 3.1.4.5) or II (EC 3.1.4.6) remained limited even after prolonged incubation. This limitation might be due to a redistribution under the action of DNase of f1 histone on chromatin DNA. With large amts. of DNase, all of the chromatin DNA may, however, be digested. A comparison was made between the extent of DNA hydrolysis by DNase and the resulting inhibition of chromatin template activity for endogenous, Escherichia coli, or rat liver (form II) RNA polymerases. The repressed sequences did not seem to be less sensitive to DNase action than the derepressed, since the decrease in template activity parallels rather well the digestion of DNA.

L61 ANSWER 185 OF 192 HCAPLUS COPYRIGHT 2006 ACS on STN
AB cf. preceding abstract DNA from T-phages (T2, T4 am82, and T3), Bacillus subtilis phage SP50, B. subtilis, B. megaterium, and Haemophilus influenzae actively initiated DNA-dependent protein synthesis in E. coli cell-free systems. DNA from E. coli and the replicative form of phage ϕX 174 were moderately active. DNA from E. coli phages λc and λvir, from polyoma and papilloma viruses, and from calf thymus, calf liver Ehrlich ascites tumor cells, and regenerating rat liver were practically inactive. All of the DNA prepns. were able to initiate the DNA dependent RNA synthesis in the presence of E. coli RNA polymerase. The hydrolysis of messenger RNA synthesized in the cell-free system by endogenous ribonucleases was inhibited by yeast ribosomal RNA. The undesirable inhibition of the transcription process could be avoided if the transcription was begun before the addition of the RNA. The stability of RNA and protein synthesis in the cell-free system was considerably increased by the addition of a ribonuclease inhibitor (probably a protein of nucleoprotein) from rabbit reticulocyte supernatant. If the DNA from E. coli phage T4 was used as the template, amino acids were incorporated into proteins which precipitated with antibodies against early protein.

L61 ANSWER 189 OF 192 MEDLINE on STN

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	41.23	41.44

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-7.50	-7.50

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